Clinical Remarks
ON
THE RESULTS OF OPERATIONS FOR STRANGULATED HERNIA.

Delivered at University College Hospital in March, 1902,

BY ARTHUR E. BARKER, F.R.C.S. ENG.,
PROFESSOR OF SURGERY AT UNIVERSITY COLLEGE AND SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

GENTLEMEN,—You are aware that a very careful analysis with separate tables of all the cases admitted into the surgical wards of this hospital is made every year and printed as the "Report of the Surgical Registrar." Being anxious lately to inquire into some matters relating to the mortality from strangulated hernia I have carefully gone through the "Tables" devoted to this subject in the "Reports" for a number of consecutive years up to the end of 1901, collecting and tabulating all the recorded cases of this condition and the results of their treatment in various ways, Mr. W. B. L. Trotter and Mr. T. R. H. Bucknall having kindly furnished me with abstracts of their unpublished reports for the last two years just going to press.[1] The study of this series has been most interesting and instructive. Such a long series of consecutive cases admitted into one institution under presumably the same conditions and treated generally on the same principles offers the best basis for generalisations that can be procured. The theories of pathology in its best and widest meaning are, of course, a great help to us, but have to be checked by clinical experience lasting over years and gathered with the greatest approach to accuracy from large numbers of cases arranged in a methodical manner as these have been. Had the figures been greater it is possible that in some respects they would have been more instructive; but as it is 406 consecutive cases of strangulated hernia offer a good basis for study. I desire now to lay before you some of the facts and conclusions to be derived from this analysis, only adding that the "Reports" have been drawn up for a long series of years on a carefully thought out and pre-arranged plan by thoroughly competent officers as their special duty, which included a careful abstract of the post-mortem notes in the fatal cases.

The subject is a most important one, for every surgeon, wherever he is placed, is sure to come in contact frequently with such a complaint as hernia, a complaint which is hardly likely to diminish in frequency inasmuch as it depends in a great measure on anatomical defects in the abdominal wall which we cannot prevent in any known way though we may, and do, remedy them by radical cures. If the practice of performing these latter operations in early life becomes more general it may, of course, come to pass that strangulated hernia will decrease in frequency. But it is not impossible, on the other hand, that the condition may become more frequent as the stress and strain of life become more severe in our ever-increasingly crowded communities. Be that as it may, the number of cases operated on for strangulated hernia in this hospital has gone on steadily rising and for the last 10 years the average number has been just twice as great as 20 years ago. This is partly due to the fact which appears in our tables that reduction by taxis is now less frequently resorted to in severe cases than formerly but not entirely.

As to the diminution in the number of cases admitted into the wards for strangulation and there treated by taxis, it may be stated that in the first series of years taken 36 were so treated by taxis, in the second equal number of years 52, in the third only 19, in the fourth only six, and in the last none at all. Of course, other cases of hernia have been treated by taxis in the casualty department but I am referring now to the more severe cases admitted to the wards for strangulation. But though strangulated hernia may possibly not decrease in frequency there is happily every prospect that the ill-effects which result from it may diminish in severity as its dangers are more fully recognised and more intelligent and common-sense measures are adopted to meet them at an early moment. However, for the present it is enough to say that this is a common and dangerous condition occurring in all classes and at all ages. As to the last point, a glance at our tables proves it completely; all ages are fully represented. That it is found among all classes every surgeon of experience knows well. And as to its dangers, we are left in no doubt when we take any long series of consecutive cases admitted for the condition into such an institution as this. Many have been relieved in the past, as we have seen, by taxis, but among such the mortality appears to have been high. In the first series of years in our tables in the cases *not* operated on but treated by taxis or other palliative measures in the wards the mortality was 13·8 per cent.; in the second equal series of years it was 13·4 per cent. Indeed, it has been so high (for the reason that the surgeon in doing taxis never knows the condition of the bowel he is returning into the abdomen) that some, myself among the number, doubt whether in any given case of strangulated hernia taxis ought ever to be employed *except in the very recent cases and among aged patients in a state of great weakness.* In this conclusion they are influenced in the first place by the acknowledged uncertainty as to the actual state of the bowel which is to be returned and in the second by the equally acknowledged safety nowadays of exposing the gut by opening the sac and examining it before replacing it. And, moreover, the possibility of performing a radical cure in such cases as are quite safe to reduce tells in favour of operating in all cases without resorting to taxis except in those conditions occurring recently in very old people.

That it is difficult in many cases of strangulated hernia to determine what amount of damage may be recovered from is well known and is clear from our tables. Numbers of our cases in which at the operation the gut was put back in the belief or hope that it was sound or viable resulted in death from perforation or peritonitis without actual perforation. The same has been true of cases treated by taxis. In other words, the peritoneum has been infected by septic matter traversing the coats of the replaced bowel in a way that does not take place when the coats are sound. The actual duration of the strangulation has been shown to be an unsafe guide as regards the propriety of replacing the loop in the abdomen. Many of the cases in which it was comparatively short have succumbed to peritonitis after reduction while others have recovered when the strangulation has lasted for days. One of the most striking cases illustrating this point was that of a recently strangulated femoral hernia in a healthy woman, 33 years of age. It had positively only been down for 18 hours. When I operated the gut looked somewhat suspicious, but I put it back and did a radical cure. Immediate recovery followed, the wound healing by first intention, and the patient left the hospital quite well on the sixteenth day. But some weeks later acute obstruction came on and the result was nearly fatal. Again, some months later another similar, but more severe, attack took place. I then opened the abdomen and found the knuckle of gut which had been strangled in the centre of a mass of adherent coils matted together. It was badly kinked just as when reduced four months before and was almost ulcerated through. I removed the whole mass of matted coils, equalling 37 inches of small intestine, united the afferent and efferent portion end to end and the patient recovered without a bad symptom. Here the first strangulation had certainly only existed for 18 hours, but I now see that the intestine ought not to have been put back at the time but should have been immediately resected. This is only one out of many cases pointing to the same conclusion.

But leaving quite apart the cases in which taxis has been applied, a glance at any long list of cases which have required operation still shows a very high rate of mortality. And this in spite of all our improvements in surgical theory and procedure. On this point I will ask you to look for a moment at the last consecutive 406 cases of strangulated hernia admitted to our wards up to the end of March, 1903, and there operated on. In the first place, the gross number of deaths (127) in the whole series amounts to 31·2 per cent. This is a very heavy mortality. But in order to see how far our improved methods and the fact that cases are now submitted to operation with less hesitation and therefore earlier than formerly have influenced the results as time went on, I have arranged the cases in equal series of so many years. You will see (Table I.) that in the first the mortality was 53·1 per

[1] Since these remarks were put together Mr. Trotter has further favoured me with the figures for 1902 and to the end of March, 1903, which have here been incorporated with the original tables.

cent., in the second 35·7 per cent., in the third 29·6 per cent., in the fourth 28·5 per cent., in the fifth 33·7 per cent., and in the sixth 25·0 per cent. From this it would

TABLE I.—*Consecutive Series of Cases of Strangulated Hernia Operated on up to the End of 1901.*

First series of years, mortality	...	...	...	53·1	per cent.
Second	,,	,,	,,	...	...	...	35·7	,,
Third	,,	,,	,,	...	...	...	29·6	,,
Fourth	,,	,,	,,	...	...	...	28·5	,,
Fifth	,,	,,	,,	...	...	...	33·7	,,
Sixth	,,	,,	,,	...	...	...	25·0	,,
406 cases, gross mortality				...	...	...	31·2	,,
Last series	...	...	...	...	...	...	22·2	,,

appear that though there have been some improvement on the gross mortality (31·2 per cent.) during the last few years and a considerable gain as contrasting the last five completed years (22·2 per cent.) with the first (53·1 per cent.), still the mortality had remained almost stationary for several years before 1896—i.e., just 30·4 per cent. And yet this period corresponds with the Listerian method of wound treatment in its full if not its highest development which no doubt partly accounts for the improvement. But it may be asked, Are not the cases of strangulated hernia now brought to the hospital at an earlier stage of the complaint than formerly and therefore less liable to suffer from the risks of operation than in previous periods? This is to a certain extent doubtless true. But that they are not yet brought to us early enough is abundantly evident in three ways when we examine the records. In the first place, the number of cases in which the condition of the patient and bowel was so bad as to forbid anything more in the opinion of the surgeon than an artificial anus being made remains almost equal for each of the series of years and was exactly the same for the first and penultimate. I contrast the penultimate with the previous series because in the last years of all analysed enterectomy has begun to take the place of artificial anus. In the next place, since the year 1887, when the first primary enterectomy was done for this condition, the number of enterectomies for each year has remained practically the same until the last three. Thirdly, a study of the post-mortem records in our series—i.e., those cases which have died after operation—shows the same dismal story of either perforation after reduction of the bowel or general peritonitis spreading from the reduced gut in nearly all the fatal cases right down to date. Excluding a few cases which died from shock and lung complications this has been the cause of death in the vast majority of the 30·4 per cent. of failures. I show you here an analysis of the causes of death in the cases dying after operation (Table II.). They amount to

TABLE II.—*Causes of Death in cases Dying after Operation for Strangulation.*

Sepsis	2	Hæmorrhage	1
Sloughing	12	Obstruction	3
Peritonitis	43	Anæsthetic	2
Collapse...	17	Lung embolism	2
Asthenia	14		114
Lung troubles	16	Unascertained	13
Heart failure...	2	Total	127

127, of which in 13 the cause was not ascertained or given. Of the remaining 114 it will be seen that sloughing of the gut or peritonitis accounted for at least 55, and indeed that about 100 died from trouble depending upon the state of the bowel returned. In other words, if it had been possible to treat these cases without returning the gut there would probably have been a much lower death-rate.

This being so, it is only natural to inquire whether this high mortality of from 25 to 30 per cent. due to infection of the peritoneum from the returned gut, perforated or unperforated, could not be reduced in some way. Now it is perfectly plain that in the first place this ought to be done by abstaining from replacing the damaged gut within the abdomen in bad cases. This involves either the fixing and opening of the damaged bowel in a surface wound and the establishment of an artificial anus to be closed later if the patient survive or the immediate removal of the damaged loop and anastomosis of the ends thus left. But as to the first means of avoiding reduction of the damaged gut within the abdomen it will be seen from our tables that in only two cases in all these years was the formation of an artificial anus successful in averting death, although the character of the cases so treated had not materially altered and the procedures may be assumed to have somewhat improved. Very little then is to be hoped from this procedure unless performed at a much earlier date than hitherto. There remains, then, enterectomy; and by this I mean the primary removal of the damaged loop without the previous formation of an artificial anus. Can we expect to have better results from this procedure than from those in vogue hitherto? Now up to the summer of 1899 no single case of successful enterectomy for this condition, whether primary or secondary, appears in our records. Since then to the end of March, 1903, there have been three cases of artificial anus with two deaths and seven cases of primary enterectomy with four deaths.

This is an important improvement. For from our previous experience I think it may be assumed that every one of these patients recovering after enterectomy would have certainly died, whether the damaged bowel had been simply reduced or had been fixed in the wound and opened so as to form an artificial anus. As to the condition of the gut in each case we can speak with confidence. It was hopelessly damaged. To have put it back would have been to court disaster and to have formed an artificial anus would have almost as certainly led to the same result. There appears, therefore, to be good reason for hoping that in primary enterectomy in selected cases we may in the future have the means of reducing our mortality still further. Of course, cases will still be brought to us in too collapsed a condition to justify the hope that any long operation will save them. But from our records we can see that there are a large number of others admitted in very fair condition in whom after a very simple and rapid operation with reduction death has nevertheless followed from peritonitis with or without perforation, and it is among them that primary enterectomy will play a very beneficent rôle, I believe, in the future. Had it not been for the successful resections of gangrenous gut performed within the last four years the mortality would have been apparently 30·0 per cent. instead of 25·0 per cent. for the last quinquennium, or 24 0 per cent. for the last four years instead of 18·0 per cent. which was actually the case. We want further experience and a larger number of cases to speak positively, but this fact is significant.

But of course the whole question turns to a large extent upon our possessing or not an adequate mastery of the principles which underlie the excision of damaged intestine and confidence in any given case that this operation subjects the patient to a smaller risk than other procedures. For my own part I know of no operation which demands from the surgeon a wider knowledge of the newest pathological lore or a more patient and laborious inquiry into every detail in the methods of carrying it out. But we are improving in both directions and I feel sure that before long we shall attain to such a proficiency as very materially to influence the mortality in the conditions alluded to above and in those allied to them. And if there be any weight in all this reasoning, that in all the cases which die after operations for strangulated hernia more than half are lost because damaged bowel is put back into the abdomen which ought never to have been so reduced, it becomes our duty very carefully to study the principles which underlie the procedure of removing at once the gangrenous loop and also the many details which in the course of time have come to be considered indispensable. This is a very wide subject. It involves a study of the whole mechanism of strangulation of gut and then the relation of the latter to the secondary enteritis and peritonitis produced by it and the bacterial infection consequent on it. It also requires a careful consideration of the processes of repair in intestinal wounds. Finally, a survey of the mere mechanism of removal of the damaged coil and restoration of the continuity of its tube must be made minutely. All this takes us very far afield. The details which have been found necessary to insure success appear almost endless and yet they must be understood and mastered if we are to be successful. Now one of the most important steps we can take in such a study is to examine closely into the causes of death in those cases of enterectomy for one or other condition which have been unsuccessful in saving life, whether among our own or outside records. Here we shall find much to instruct us in the first place as to the selection of cases in which such a procedure is demanded and is not too late,

next as to the length of the portion of intestine to be resected, and finally as to the conditions which must be observed in uniting the cut ends. This would, however, lead me too far to-day. I will only remark in conclusion that errors in technique are becoming rarer and, as was pointed out to me by our surgical registrar, the last unsuccessful cases of enterectomy show in the post-mortem records that death in each was due to causes quite independent of the details of the procedure and was really consequent on the general condition of the patient at the time of the operation. One was due to a band of old fibrous tissue which caused a second strangulation when the junction after resection had been made successfully.

A Clinical Lecture
ON
ACHOLIA.

Delivered at St. Mary's Hospital Medical School on May 7th, 1903,

BY W. B. CHEADLE, M.D. CANTAB., F.R.C.P.,

SENIOR PHYSICIAN TO ST. MARY'S HOSPITAL AND LECTURER ON CLINICAL MEDICINE AT THE MEDICAL SCHOOL; CONSULTING PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

GENTLEMEN,—An affection of the digestive tract which has received scanty consideration either from pathologists or clinical observers—although it has not passed altogether unnoticed—is that condition which I have ventured to term "acholia." In its minor degree it is by no means very uncommon; you may have seen a mild but not uncomplicated case of the kind in a child a few weeks ago in De Hirsch ward. In its more extreme and rarer forms it is a serious disorder and sometimes, although rarely, of fatal issue. I have seen one fatal case only.

Acholia is specially characterised, as the name implies, by the absence of bile in the stools—without jaundice or sign of obstruction to the biliary outflow from the ducts. This peculiar condition of the stools without jaundice has been noted by clinical observers in varying circumstances and in different disorders without in most cases any special appreciation of its pathological significance. One form of it in children has been described by that acute clinical observer, Dr. S. J. Gee, in 1888, under the name of cœliac disease[1] or belly affection, from κοιλία, the belly, in allusion to the flaccid distended abdomen and implication of the abdominal organs, and he gives an excellent clinical presentation of the disorder in all its symptoms, designating it as a form of chronic indigestion. Cases of the same nature have been recorded by Dr. R. A. Gibbons[2] in a thoughtful and suggestive article published in the *Edinburgh Medical Journal* 11 years later, in which he expresses the opinion that the source of trouble will be found in the liver. Similar conditions of the stools in the case of adults have been noted by Sir Joseph Fayrer in the so-called white diarrhœa of the tropics and by Dr. P. Manson and Dr. G. Thin in sprue. A condition of colourless stools has also been described by Dr. T. J. Walker of Peterborough in an interesting paper published in the Transactions of the Royal Medical and Chirurgical Society for 1889, as occurring in two cases of complete obstruction of the pancreatic duct. In one instance these colourless stools persisted uninterruptedly for a period of upwards of 20 years. Dr. Gee's cases and those of Dr. Gibbons occurred in children, but those described by Dr. Walker occurred in adults upwards of 50 years of age and the white diarrhœa and sprue of the tropics are met with chiefly in grown persons.

The term "acholia," which I have been in the habit of using to indicate this condition of abilious stools, has also, I find, been adopted by Dr. Manson to indicate the same phenomenon in the case of sprue. It is terse and emphasises the chief and most striking feature of the affection—viz., the absence of bile. This obvious and distinctive symptom of the disease varies somewhat in degree. In some cases the fæces are merely pale, fawn colour, or straw colour, in others clay-coloured only, like putty, but in more extreme and typical cases they are absolutely white, without a vestige of colour except a slight tint of grey—as white as pipeclay or white paint. Now, you are no doubt familiar enough with this absence of colour in the fæces—clay-coloured or white evacuations—in the case of jaundice. In this condition the bile does not pass into the duodenum; unable to escape out of the hepatic duct or common duct on account of closure or obstruction of the pipe the contents of the bowel are not coloured by it, and remain clay-coloured or white. The bile, held back in the liver and its ducts, is absorbed into the blood, the urine is charged with it, it stains all the tissues, and jaundice results. The pathology of the condition of white stools in jaundice as a consequence of obstruction to the outflow of bile is of course simple and intelligible. In acholia, however, there is no jaundice; the stools are as white as those of obstructive jaundice when bile is absolutely shut out from the intestine, but there is no resorption of bile into the blood, or if there is it must be quickly destroyed there, for there is no staining of the tissues by its colouring matter; it does not appear in the urine. Bile is clearly not pent up in the liver or it would be reabsorbed and its pigment would enter the circulation and appear in the urine and in the tissues as in ordinary obstructive jaundice.

Let us look more precisely into the conditions under which these colourless stools without jaundice are met with. In the first place, white stools of this character occur not infrequently in persons who live highly—in the matter of food and drink—and in people of gouty habit. Now and again they pass light-coloured whitish stools for a few days, accompanied by malaise, disgust for food, a general sense of being out of sorts, and with this often a yellowness of complexion not amounting usually to actual jaundice. After a cholagogue purgative and restricted diet the motions shortly resume their normal character. I have seen a similar condition arise from time to time in chronic Bright's disease and I imagine that a passing acholia may be more common than is supposed. We examine the urine most religiously, but the state of the fæces, in the case of adults at least, is little observed.

These examples of partial acholia are, however, casual, temporary, and of no importance except as signs of passing liver disorder. But white stools of more persistent character and of more serious import involving danger to nutrition occur also. They are met with in hot climates in fluor albus or white diarrhœa and in sprue, for which the former is probably only another name. In this country, however, acholic stools occur usually in children under five years of age, but by far the most often in the first two years of life. It must be borne in mind that young children who are fed entirely, or chiefly, on milk have naturally light motions, but these have always a distinct yellow or brownish tint, and can be distinguished from those of a true acholia. In a typical acholia the fæces are not merely pale, they are a dirty grey or absolutely white, in well-marked cases without a shade of yellow or brown. They are obviously as destitute of bile as those of complete obstructive jaundice. Usually they are slightly loose, like oatmeal gruel or milk gruel; sometimes, however, they are like a mass of white paste or white paint. And there is the other special feature—viz., that they are distinctly greasy in appearance, glistening, fatty. Another characteristic feature is that the stools are distinctly offensive—often horribly so—stinking. And, lastly, they are larger than normal, more voluminous, as if food taken in was imperfectly absorbed.

The onset of acholia in children is usually abrupt, as in the child mentioned in De Hirsch ward; all at once the colouring matter disappears from the fæces which quickly assume the greyish-white tint and the frothy, greasy, offensive, loose character already described. In other cases the change is more gradual, the stools, which at first are merely pale, becoming less and less coloured until all pigment disappears. The advent of these soft greasy, offensive, voluminous white stools is speedily followed by marked impairment of general health. At first there may be some rise of temperature, especially if dentition is troublesome, but after a time the temperature falls to normal or sub-normal, the appetite fails notably, and the child becomes pallid, languid, and enfeebled. The patient not only ceases to thrive but becomes flabby of flesh, loses weight,

[1] St. Bartholomew's Hospital Reports, 1888, p. 17.
[2] Edinburgh Medical Journal, October and November, 1899

the abdomen becomes full yet flaccid, the enfeebled abdominal wall yielding to the distending gases of the fermenting food in the intestines, and in prolonged cases the patient wastes steadily to emaciation. These well-marked cases are not common, but altogether a considerable number have come under my observation in the course of years and never so many, I think, as during the last twelve months.

CASE 1.—As a fairly typical example of a severe protracted acholia I may give that of a child, aged one year and four months, who had been under the care of Dr. A. W. Rowe of Margate and whom I saw from time to time in consultation with Dr. W. Rivers Pollock. From Dr. Rowe's excellent notes, which he kindly sent me, it appears that the child had severe pneumonia seven months before—i.e., in December, 1901, when about eight months old. At the end of five weeks he was convalescent and was sent to Bournemouth to recruit; there unfortunately influenza was contracted and the patient lay severely ill for two months. The child was feverish, anæmic, and troubled by teething in the early spring but did not lose flesh. In May, 1902, however, the patient began to flag, lost appetite, and, note especially, dentition became very painful. The child was generally ailing in this way when he came under the care of Dr. Rowe in the middle of June. The condition then was as follows. The patient was wasted, frequently sick, and constantly crying; the gums were greatly inflamed and the motions were abnormally large, sour, horribly offensive, white, and full of undigested curd. The temperature was 101° F. The urine was acid, contained excess of urea, leucin crystals were observed, and its specific gravity was 1018. The child was placed upon good milk with Savory and Moore's food and raw meat juice and pepsin were given. No improvement in the character of the stools following, salol was given in place of the pepsin. Immediate improvement took place (no doubt from the antiseptic effect on the stools), the fever subsided, the motions became smaller and of somewhat better colour, and the salol was continued. The teeth came through gradually, but the child did not put on flesh satisfactorily. No weight was gained in spite of pancreatic emulsion being added to the food. At this point (July, 1902) the child came to London and I saw him for the first time. He was then pallid, flabby, with a soft tumid abdomen. He had been losing flesh steadily during his illness and was taking food badly, with poor appetite. I learnt that although there had been some little colour in the stools from time to time they had practically been almost white throughout the last phase of illness—i.e., since May 10th—but there had been no distinct diarrhœa. A stool had been kept for inspection and proved to be of a grey white, without a trace of brown colouring matter. It was copious, of the consistence of white paint or thick gruel, frothy, obviously greasy, and horribly offensive. In view of the imperfect secondary digestion which the absence of bile and presence of fat indicated pancreatised food was prescribed and also pancreatic emulsion. To remedy the anæmia raw meat juice was given. To stimulate the defective function of the liver half a teaspoonful of brandy in a tablespoonful of water with some sugar was given three times a day and a mixture of the three chlorides of arsenic, iron, and mercury in small doses. The fæces were kindly analysed for me later when they had regained colour slightly by my friend, Dr. W. H. Willcox, our lecturer on chemistry and chemical pathology, who reports as follows: "They were pale clay colour and of the consistence of thick cream, slightly alkaline, and containing 85·46 per cent. of water. On microscopic examination nothing noteworthy was discovered, a few epithelial cells and the usual crystals of phosphates and débris of food being present. A portion of the specimen was carefully dried until all water was completely removed. The residue formed an oily cake, which burnt readily with a smoky flame and evidently contained much fat. The fat was then carefully estimated by Soxhlet's method. The dried fæces contained 63·35 per cent. of matter soluble in ether and almost entirely fat. As a control experiment a specimen of normal fæces was analysed and found to contain from 12 to 16 per cent. of fat which agreed closely with the normal standard established by other authorities." It had been arranged that the child should be sent into the country. There the patient made no progress, the stools remained colourless, and the medical man in charge advised his return to be under special treatment in town. On the child's return to London about a fortnight later I saw him again with Dr. Pollock. The condition was little changed. The stools were the same; there was no gain of flesh or hæmic improvement. The arsenic, iron, and mercury mixture which had been omitted was resumed; also, the raw meat-juice, pancreatised food, and pancreatic emulsion which had not been persevered with and which we judged essential to supplement the defective biliary and pancreatic function. On Sept. 10th, nearly two months after the first consultation, I learnt that the fæces showed a slight return of bile, having a slight yellow tinge, were less offensive and greasy, and that the child had gained one pound in weight. I have recently seen the child again; the fæces have become perfectly natural in colour and consistence, and he is thriving well.

CASE 2.—Another case with less severe symptoms but an extremely slow recovery protracted over several years, was that of a boy, aged three years and four months (M. B., September, 1899), who was brought to me for wasting and delayed growth, great loss of appetite, and distended abdomen which had existed for months. It was stated that the stools had always been unduly light from infancy and latterly quite white. The boy was under my observation for nearly a year; during that time the stools remained either almost colourless or with light-yellowish tint for brief periods only. They were analysed by my friend Dr. Willcox, the results giving always excess of fat, the percentage varying in accordance with the degree of bile colouring and their obvious greasiness and offensiveness—viz., 19·8 per cent., 24·3 per cent., 44·9 per cent., and 49·65 per cent., or from twice to four times the normal amount. In the sample which gave the highest estimate, 49·65 per cent. of fat, there were no traces of starch or sugar; bile pigment and bile acids were entirely absent, the colour being pipeclay white; in the specimen yielding 24 per cent. only there was a small amount of bile pigment present. After many months' treatment by alkalies and pancreatised foods and change of air improvement set in; but I learn from Dr. J. Ford Anderson, under whose care he is, that there is excess of fat in the stools and that they are still unduly light in colour. The stopping of milk in his diet, although butter is allowed, is stated to have effected much good.

CASE 3.—In another instructive case which I saw in consultation recently with Dr. W. A. Rudd of Acton the condition was stated to have continued with little variation for two years. The child, three and a half years old, was anæmic, wasted greatly, had extreme flabbiness of flesh, and a distended tumid abdomen. The stools were of the usual acholic character—greyish-white and pasty or semi-liquid, greasy, obviously loaded with fat, and most offensive. The history was that the fæces were first observed to have become quite white during a severe teething time accompanied by much pain and general disturbance of health. Since then, with occasional exceptions, the stools had been white or extremely light. Now and again the motions had been slightly coloured, a faint yellow, but before long had changed again to the grey, pasty, greasy condition which had now obtained. A chemical analysis in this case by Dr. Willcox showed fat present 33 per cent. or three times the normal amount. The child had had numerous changes to various places and of course had been treated by numerous medical men who generally diagnosed tuberculosis. At times the patient had gained a little in weight and lost it again. The temperature was normal. All organs were found to be healthy as far as physical signs went. There was no sign of any enlargement of the abdominal glands, no tenderness or tension of the abdomen. The child was not captious or fretful—a suggestive indication against the condition being tuberculous. Pancreatised foods, chlorides of arsenic and mercury with small doses of brandy were prescribed. I learn from Dr. Rudd that the stools have improved in character and that the child is gaining weight.

CASE 4.—I saw another protracted case in consultation with Dr. J. E. Paul and Dr. F. M. Burnett of Sevenoaks last summer in a child, aged seven months. I learnt that it had had many food troubles—vomiting and diarrhœa—but had gradually settled down and was apparently making good progress on sterilised milk until five days before when looseness of the bowels returned, the motions became extremely light in colour, there were colic and distension of the abdomen, and the bowels acted from three to six times in the 24 hours. At my visit I found the child anæmic, flabby, with soft distended abdomen, very restless, crying, and occasionally sick, and a glance at the stools at once disclosed the condition. They were white—white as paper almost—abilious,

with here and there a faint streak of yellow—greasy, like white paint—and most horribly offensive from decomposing fat. Some bismuth and soda were prescribed to moderate the intestinal flux. A mild diet of bread jelly with sugar of milk and a little cream was given, also meat juice, with brandy as a hepatic stimulant. For a time the patient improved, as I learn from the medical man in charge, and then relapsed now and again for six months, the stools becoming white and loaded with undigested fat. No chemical analysis was made in this case. The chief difficulty noted by Dr. Paul was that whenever fat was given it was passed undigested—this and the colourless stools remained the prominent features. The child has, I learn, recovered, the stools have become healthy, and it is gaining weight and normal nutrition.

I might bring before you several other cases of similar character, but I shall content myself with one only which was of short duration and exhibited some suggestive features.

CASE 5.—A little girl, aged one year and six months, was brought to me for loss of appetite and slight looseness of the bowels attributed to teething; the stools were quite white and had been so for four days. Two large upper double teeth were pushing through the gums which were swollen and tender. In the course of a week these came through and the stools gradually became normal in colour. Almost immediately, however, the complete acholia returned, coincident with the eruption of similar teeth in the lower jaw. In the course of five days more these were through the gums and the stools again gradually regained colour and became normal. The coincidence between the active dentition and the advent of acholia was very striking.

So much for acholia as seen in childhood. It is met with also in adults, but rarely in this country. I have observed only two cases, both of which recovered; others, however, have been recorded. One of the two above-mentioned cases came under my care in 1897.

CASE 6.—The patient, aged 60 years, was a tall man of robust frame but in a state of considerable emaciation. During the previous six months he had lost eight stones in weight. At the commencement of his illness he weighed 16 stones. He now weighed only just over eight stones. Although so weak of muscle that he could not stand without assistance his mind was as clear and active as ever. Careful physical examination disclosed one thing only beyond the remarkable wasting—viz., a mitral murmur and irregular action of the heart. He had never had rheumatic fever. It appeared that the previous summer he had been on a tour to the Holy Land and there contracted this white diarrhœa with offensive stools. The great features of his illness had been the constant passage for six months of white, greasy, pultaceous fetid stools like white porridge, of great volume, out of all proportion to the food taken. He had two or three of these daily, occasional vomiting, and with this extraordinarily rapid emaciation and increasing weakness. The stools were analysed by Dr. Willcox and yielded from three to four times the normal amount of fat. He also complained of dryness of the tongue, but there was no special smoothness of its surface. Another symptom in this patient (one quite contrary to what prevails in the acholia of children with whom appetite is impaired and feeding difficult) was the extraordinary craving for food and power of taking it, although clearly not of assimilating it. He affirmed that he had some nausea and occasionally he vomited, but only at long intervals, but he took food eagerly. At first, in view of the looseness and offensive stools, I limited the amount of food and restricted his diet to soft, easily digested matter: bread-and-milk, eggs, dry toast, and raw meat juice. I quickly found, however, that on this he lost weight and strength more rapidly than before and I at once proceeded to increase the amount of nourishment. This I pressed progressively, to the great contentment and advantage of the patient, whose capacity proved extraordinary. Before long he took with entire satisfaction six pints of milk and some pancreatised milk gruel, in addition to three great meals of solid food—eggs, bacon, meat, vegetables, pudding, as much as could be taken by a man in robust health with hearty appetite. In addition to full feeding he had massage and galvanism to the abdomen, but drug treatment was limited to bismuth to restrain undue flux and pancreatin in keratin capsules. The object of the keratin covering is, as you know, to protect the contents from being acted upon by the gastric juice and to insure its passage intact into the duodenum where its physiological action on food commences. On one or two occasions ox gall was given in this way with the striking result that the fæces, which were very acid, showed now streaks and patches of brilliant grass green colour; the addition of bile to the stools produced biliary colouring, indicating that the absence of this was the cause of the absence of colour. Under this treatment the patient began to gain weight—one pound a week only at first—and a slight brown colouration of the fæces developed; at the end of six months he had practically recovered. The bowel digestion had become normal. His weight had risen to 11 stones.

The preceding case was no doubt one of "sprue"—contracted abroad—in which white loose stools of this character, dry tongue, and progressive emaciation are the main features. I have related it for the sake of comparison with the acholic condition in children. The condition of the stools in the two forms is absolutely identical; some of the symptoms, notably the appetite for food, are different.

With regard to the pathology of these conditions, naturally the first question which arises is whether bile is actually excreted by the liver at all, or whether it is bile pigment only which is wanting, or whether although it is formed it is wholly reabsorbed—not partially only—or so changed in transit that it fails to colour the fæces? An explanation on this latter hypothesis has been put forward by Dr. Walker of Peterborough, based upon the two cases of obstruction to the pancreatic duct before mentioned. Dr. Walker suggests that there is some defect in the transformation of the biliary pigment so that it is not converted into the hydrobilirubin of the fæces; that this transformation is normally effected by the pancreatic secretion and that the absence of this, as in his cases of occlusion of the pancreatic duct, is the cause of the absence of the normal colour.

That the functions of the liver are gravely interfered with, and possibly those of the pancreas also, seems certain from several considerations. 1. The stools are obviously greasy; in some instances you can see fat standing on the surface so thick that they glisten like talc and on analysis are found to contain an enormous excess of fat, from 24 to 63 per cent., the normal being from 11 to 12 per cent.—i.e., twice to more than five times as in the normal state. 2. The stools are acid, or slightly alkaline only, and are extremely offensive, presumably from decomposition of fats owing to the absence of bile, which is known to have antiseptic power[3] and arrests fermentation.[4] 3. The stools are large in volume out of proportion to the food taken, indicating imperfect digestion and absorption. 4. The patient wastes rapidly, and in protracted cases becomes greatly emaciated, white, flabby, and anæmic. 5. In all cases bile pigment is deficient and in extreme and typical cases, where the stools appear white, no trace of it can be found. Moreover, in the most marked cases analysed by Dr. Willcox the bile acids were entirely absent also. In the case of sprue the results of different observers in this respect are contradictory. The effect of the administration of ox gall in producing green colouration of the stools points to the absence of this being the cause of absence of colour. 6. Although the urine has only been fully examined in two cases, in one urea was largely deficient (only 0·45 per cent.) and in another in excess, and crystals of leucin were observed, this being indicative of imperfect liver function.

As far as I know no definite lesion has been discovered post mortem. In the one fatal case which I have met with no post-mortem examination was permitted, but it is stated by Dr. Gibbons that the intestines show no marked change and the only abnormal conditions met with are some enlargement of the spleen and anæmia. The liver, where one would expect the secret might lie hidden, is normal in appearance. In sprue there are extensive necrotic erosion of the mucous lining of the bowel and the stomach is similarly affected. But these, as Dr. Manson observes, are obviously not primary changes, but the result of primary changes, as in starvation, and do not explain the acholia. The pancreas occasionally shows isolated patches of parenchymatous change, but these are not constant. The absence of bile colouring matter and of bile, the quantity of undigested decomposing fat, the wasting (the deficiency of urea and the existence of leucin if confirmed), all point to an arrest more or less complete of the chologenetic function of the liver, as pointed out by Dr. Manson in

[3] Tudmann and Gmelin have shown that the fæces become much more fœtid after ligature of the common duct.
[4] Carpenter's Physiology.

sprue, and not merely to an abnormality of bile pigmentation only, and possibly of other intestinal digestive functions also. The explanation given by Dr. Walker of the absence of colour being due to the want of pancreatic secretion essential to its production seems to be negatived in this instance by the fact that the constituents of bile are absent and by the result of the administration of ox bile previously mentioned. This produced brilliant patches of bilirubin in the fæces, showing, I think, that it was the biliary element not the pancreatic that was missing.

Causation.—As to the cause—as in sprue—it is most obscure. The frequency with which acholia arises during dentition, especially difficult and painful dentition, the known influence exerted by the nervous system upon gland secretion—as, for example, the effect of stimulation of the chorda tympani upon salivary secretion—the effect of reflex irritation of the spinal cord in lessening the secretion of bile, and, on the other hand, the effect of nervous excitement in producing jaundice, favour the view put forward by Dr. Gibbons that the disease has a nervous origin. It is possibly a dental irritation reflex. We know that this is a cause of diarrhœa and it may be of acholia. The only other condition in addition to teething with which I have noted acholia to be possibly associated is surface chill. It has seemed to me most common in the cold spring east wind time. Yet I think the nervous inhibition—a reflex from difficult dentition—is the most probable pathological cause.

Treatment.—The indications for treatment in this affection are to ease the work of the liver, especially with regard to the digestion of fats and starches and to assist its function. To this end fats and starches, and especially fats, should only be given in the raw state in small quantity but chiefly pre-digested, as in pancreatised milk gruel or pancreatic emulsion. For the rest broth, beef tea, fish or meat foods, skim milk, malted bread or biscuit, with the addition of fresh fruit or baked apple for the older children. As for drugs, bismuth and opium if the looseness is troublesome, and those medicines which act as hepatic stimulants and blood stimulants are also useful, together with antiseptics such as salol and listerine. The chlorides of arsenic and iron with perchloride of mercury in small doses have appeared to do good. Brandy in doses of from 10 to 60 drops, according to age, given in a dessertspoonful or tablespoonful of sugar and water, is a useful hepatic stimulant, and if the teeth are pushing and the gums are swollen and painful they should be lanced. Appropriate doses of chloral and bromide—for a young infant from half a grain to a grain of chloral and from three to five grains of bromide of ammonium—are of value as serving to allay reflex nervous irritation.

THE DIFFERENTIATION OF THE CONTINUED AND REMITTENT FEVERS OF THE TROPICS BY THE BLOOD CHANGES.[1]

BY LEONARD ROGERS, M.D., M.R.C.P. LOND.,
CAPTAIN I.M.S.; LATELY ACTING PROFESSOR OF PATHOLOGY, MEDICAL COLLEGE, CALCUTTA.

THE great advances which have been made during the last few years in the microscopical methods of diagnosis of malaria and typhoid fever respectively have placed in our hands the power to differentiate, with far greater accuracy than was previously the case, these the most frequently met with and the most important of tropical fevers. Further, by enabling these two to be separated out, we are enabled to investigate, with much greater hope of obtaining at least approximately correct results, the very difficult and all-important question as to whether there are any as yet undifferentiated fevers remaining to be carefully examined and described. The large hospitals of Calcutta furnish an unrivalled field for such an inquiry and, thanks to the great kindness of the medical staffs of these institutions (all of whom are officers of the Indian Medical Service, to whom I desire to express my great obligation), I have been able during the last one and a half years to examine the blood and to carry out the serum tests in about 200 cases of continued and remittent fevers of all kinds, in both the Presidency General Hospital, which admits European patients only, and in the Medical College Hospital, where the majority of the patients are natives of India. The cases have been taken consecutively, as far as possible, every case being examined when time permitted. Further, I have in my possession clinical notes of the cases and four-hour temperature charts, which have been carefully analysed in order to see how far a study of series of different forms of continued and remittent fevers, as proved by the blood and serum examinations, will enable any rules of value to be laid down for their clinical differentiation. The subject is too vast a one to be treated adequately within the limits of a single article, but the principal conclusions which have been arrived at may be set forth and the evidence on which they are based may be summarised.

The nomenclature and classification of tropical fevers adopted by various Indian writers are too varied to be referred to in detail, so it will be best to start with that which Dr. A. Crombie, C.B., laid down in his address in the Medical Section of the Indian Medical Congress of 1894, which may be taken as a valuable summary of what can be said on the subject of the differentiation of Indian fevers, by means of purely clinical methods, by an observant physician of great experience, mostly acquired in the very hospitals in which I have been recently working. In addition to malarial intermittent and remittent fevers, Dr. Crombie in his presidential address in Medicine and Pathology at the Indian Medical Congress in 1894 describes under the head of "continued fevers" three certain and two more doubtful forms, as follows:—1. Simple continued fever, lasting from three to eight days and including three-fourths of the fevers commonly returned under the head of "ague" in India. 2. Typhoid fever, extremely rarely found in natives. 3. "Non-malarial remittent," lasting from three to six weeks, commonly fatal and mostly seen in natives. Doubtful fevers: 4. "Calcutta fever" or "Bombay fever," being an aggravated "simple continued fever," lasting for 14, 21, or 28 days. 5. Low fever, the temperature varying from 99° to 101·5° F., being very persistent, not affected by quinine, but often cured by a complete change.

No. 3 in the above list Dr. Crombie regards as being the most important undifferentiated fever remaining to be thoroughly investigated and its organism identified. It was mainly in the hope of separating it, and perhaps other fevers, so as to be able to search for its cause, that the investigation now being described was undertaken. Nearly all the long-continued fevers occurring in the large Medical College Hospital have been examined in the pathological laboratory for a space of 18 months; and at the same time nearly daily visits were made to the General Hospital at the other end of the town for the purpose of examining all similar cases there. In order to simplify matters as much as possible and to avoid repetition, it will be best first to describe my methods and results, and then to compare them with Dr. Crombie's clinical types.

METHODS OF RESEARCH. THE DIFFERENTIAL LEUCOCYTE COUNT.

In addition to the serum tests for typhoid fever and Malta fever and the search for malarial parasites, a new method described by me a year ago[2] has proved to be of the greatest value in this inquiry—namely, the increase in the percentage of lymphocytes in typhoid fever and of the large mononuclear white corpuscles in malarial fevers, by which means alone in the great majority of cases a correct diagnosis can be arrived at by the examination of stained blood films with an ordinary high-power lens. My earlier results have been amply confirmed by the much larger series of cases since examined, while Captain T. H. Delany, I.M.S.,[3] has obtained precisely similar results in upwards of 100 cases examined by him in the Medical College Hospital. The great advantage of this method lies in the fact that the result is in no way interfered with by the previous administration of quinine, as in the search for malarial parasites. As long ago as 1896[4] I showed from an examination of 100 cases of consecutive malarial fever before the administration of quinine that in only one-third of them could the malarial parasite be found by means of a prolonged search of a single blood film; and the absence of the parasite from the peripheral circulation in untreated cases has recently been emphasised by Dr. Stephens and Dr. Christophers.[5] In a still larger proportion of cases which have been treated with

[1] A paper read before the Royal Medical and Chirurgical Society on May 12th, 1903.

[2] Brit. Med. Jour., April 5th, 1902.
[3] Ibid., March 28th, 1903.
[4] Indian Medical Gazette, 1896.
[5] Report of the Malaria Commission of the Royal Society.

quinine will negative results be obtained. Thus Maynard,[6] working in the Calcutta General Hospital in 1895, found parasites in only 25·7 per cent. of 70 cases of malarial fever, nearly one half of which had previously taken quinine. As in my present series quinine had been nearly invariably given before I was able to examine the blood the search for the parasites was negative in the great majority of the cases examined and no conclusions can be drawn as to the proportion of malarial fevers in the series from the number in which parasites were found. This is also in entire accordance with Captain Delany's[7] recent results, for in only 17 per cent. of undoubted cases of malarial fever examined by him were parasites found on account of the previous exhibition of quinine, while in over 90 per cent. he was able to diagnose them correctly by the large mononuclear leucocyte increase. It is worthy of note that Captain Delany and myself, or frequently independently, did counts on the same cases at different times yet never arrived at a different diagnosis. The constancy with which a positive Widal reaction for typhoid fever has been accompanied by an absence of any large mononuclear increase, while on the other hand a negative reaction, together with a large mononuclear increase, has been found in nearly all cases which were either obviously malarial clinically or which were subsequently proved to be so by their reaction to the quinine test in this large series of cases, appears to me to be in itself conclusive as to the great diagnostic value of the leucocyte count. Stress is laid on this point at the outset because much of any value in the differentiation and classification of tropical fevers which this paper may possess depends on the correctness or otherwise of this new test, in addition to the serum reaction. I have already described the method of counting which I have adopted, so need not repeat it here. Briefly, it may be said that blood films were made by spreading out a small drop of blood on a slide by means of the gliding motion of a needle; they were fixed in alcohol and stained by Romanowsky's method. Counts were made by working from edge to edge of the middle of the film. Mononuclears which were as large as, or larger than, the average polynuclears, only were counted as large mononuclears. From 250 to 500 leucocytes were counted, the smaller number having been found to be quite trustworthy in most cases after some experience.

The importance of recording the temperature every four hours scarcely needs emphasising, and its value in differentiating between the continued type of many cases of typhoid fever and the severer forms of malarial remittent fever will be dealt with later.

TYPHOID FEVER IN EUROPEANS.

It will be well to deal with this, the best known continued fever of the tropics, first, so as to be able to have a standard with which others can be compared. During the last year an unusually large number of cases of typhoid fever have been admitted to the European General Hospital, as will be seen from a glance at the upper curve of the appended charts showing the seasonal incidence of fevers, so that out of 126 cases of all kinds examined by me in this hospital during the past one and a half years, no less than 50 were typhoid fever. The notes and blood examinations of these have been tabulated in shorthand, so a brief analysis of the most important points regarding them may be given.

Age incidence and duration of fever.—These are shown in Tables I. and II.:—

TABLE I.—*Showing Age Incidence.*

Years	5	5–10	11–15	16–20	21–25	26–30	31–40	Over 40	Total.
Cases	2	3	11	18	7	6	1	2	50

The percentages in each period can be obtained by doubling the figures given, and it will be seen at once that the age distribution of these cases is typically that of typhoid fever.

Table II.—Showing Duration of Fever.

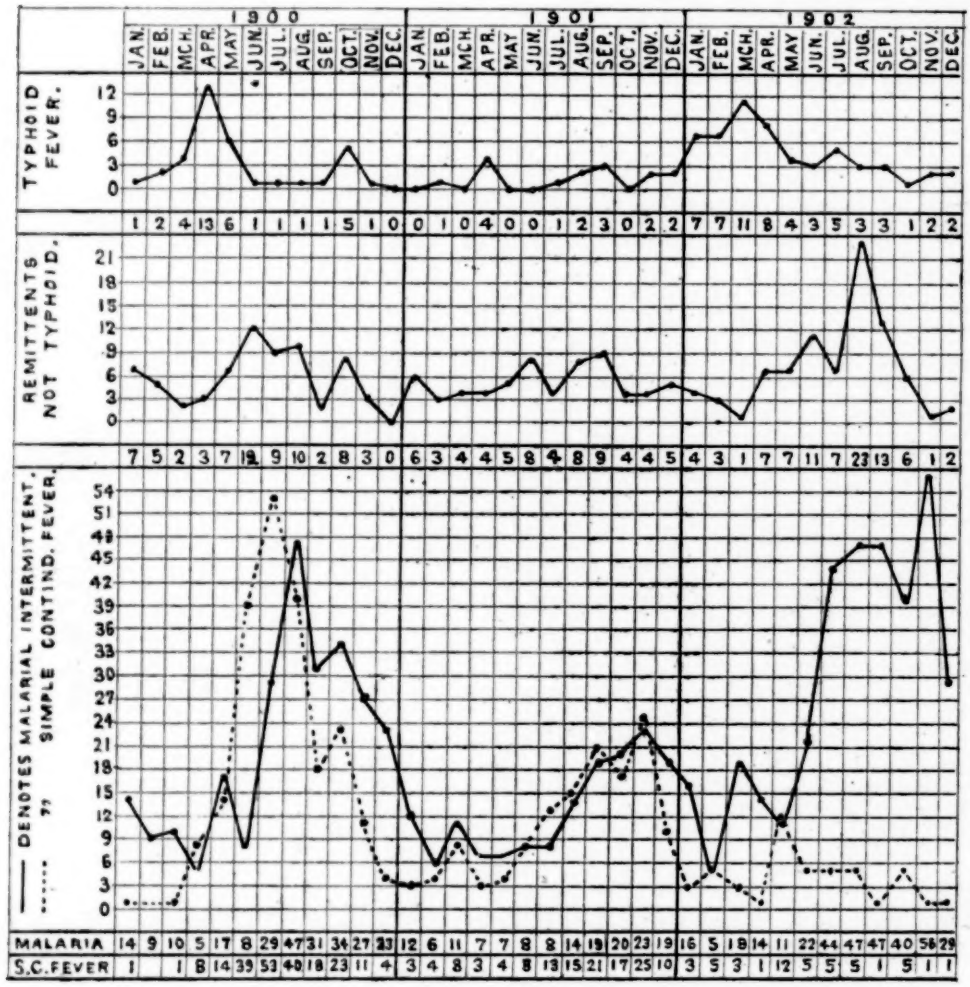
Days	1–7	8–14	15–20	21–25	26–30	31–40	Over 40
Cases	1 (died)	2	8	19	7	6	7

In the very great majority of these cases among Europeans accurate histories can be obtained, so that the accompanying data with regard to the duration of the fever are fairly reliable, although doubtless two or three days at the beginning of some of the milder and shorter cases may have been overlooked by the patients or their relatives. In only two cases did the fever last less than 15 days (omitting one case fatal on the fifth day), these being abortive cases which will be referred to again. In eight more cases the fever is recorded as having lasted less than 21 days, one of which proved fatal on the seventeenth day. Three of them lasted for 18 days, one for 19, and the other three for 20 days. These were mostly mild cases in which an insidious onset may have been overlooked for a time. Of the above cases lasting less than three weeks all but two were in patients under 21 years of age, typhoid fever being well known to be milder in young persons. Between the periods of from 21 to 25 days, 19 cases, or 38 per cent. of the whole, fall; while seven cases lasted from 26 to 30 days, six cases from 31 to 40 days, and the remaining seven for upwards of 40 days, including four cases in which relapses occurred, the longest time having been 69 days. These figures are also characteristic of typhoid fever.

Clinical characters.—With the exception of a few mild cases which did not show very marked symptoms of typhoid fever but were diagnosed by the serum test, the series was as a whole typical of the disease and most of them had either been diagnosed as typhoid fever or were suspected to be such before the blood examination was reported. In 39 of them looseness of the bowels, with more or less characteristic stools, was noted at some period or other of the fever, while 13 showed constipation. In four hæmorrhage was noted, in one of which it was attributed to coincident dysentery. Characteristic spots were noted in 16 cases, while in 13 they were recorded as having been absent. During the hot and rainy season prickly heat is often so extensively present as to make a search for typhoid spots a difficult and uncertain proceeding, but for which they would probably have been found in a larger proportion of cases, for I find that they are more frequently detected in the cold weather months and they are undoubtedly of great diagnostic value in Europeans, even in the tropics. Abdominal symptoms are of the utmost diagnostic importance as in only eight cases was the abdomen noted as normal and that usually in an early stage of the disease, while in eight more there was no note on the subject, the clinical records having been scanty in some of the milder cases. In the remaining 34, or 68 per cent., there was distension, tympanites, or tenderness, or, most frequently, two or more of these symptoms together were noted. The spleen was felt below the edge of the ribs in only 12 cases and the liver in 15 cases. The pulse was frequently noted to be dicrotic and bronchial catarrh or congestion of the bases of the lungs also occurred fairly frequently. All the above points taken together constitute a typical clinical picture of a series of typhoid fever cases which will serve for comparison with other tropical continued and remittent fevers and only the important question of the type of the fever curve remains to be considered under this heading.

The temperature curve.—The clinical differentiation between a continued and a "remittent" type of fever, although simple enough in well-marked cases, presents difficulties when it is desired to draw a hard-and-fast line between them. As, however, the separation of the continued type, so characteristic of most cases of typhoid fever, from the "remittent" type of severe malarial fevers is of the utmost practical importance an attempt must be made to draw the line somewhere. Bearing in mind that the malarial remittent fevers are caused by the malignant tertian parasites, we should expect a marked remission at least every other day in these cases, while any case in which the temperature varied through a range of only two degrees or less for slightly over 48 hours (to allow for some degree of "postponement" in malarial remittent fevers running a favourable course) may be considered to be of a "continued" type. The practical value of this definition will appear presently and we may now see how frequently this "continued" type occurs in typhoid fever and how early it is present in a characteristic degree. An examination of the four-hour temperature charts of my 50 cases of typhoid fever from this point of view gave the following results. During the first week of the disease there were admitted 29 cases, of which 20 were admitted on or before the fifth day and 11 on or before the fourth day, leaving three and four days respectively of the first week for observation in hospital, yet eight of them showed the "continued" type within that time. During the second week 21 more cases showed it, and two others during the third week, and three at later dates. Thus 34 out of the 50 cases presented this feature at some time or other in the course of the disease, the great majority of which showed it well before the end of the second week.

[6] Indian Medical Gazette, 1895, p. 412.
[7] Brit. Med. Jour., March 28th, 1903.



Charts showing seasonal prevalence of various fevers.

On the other hand, in 14 cases the remissions of the fever were more marked, while in two cases in young children the curve was intermittent throughout. The persistence of a high degree of fever is also an important point to note, for in typhoid fever cases it is common for the temperature to remain persistently above 102° for days together, while we shall see presently this and the "continued" type of fever very rarely occur in acute malarial remittent fevers.

Death-rate.—This was 6 per cent., only three patients having died out of the 50. This points to the very high mortality of 25 per cent. and upwards returned frequently in the British army in the tropics as being due to mild cases which are often overlooked.

The serum reaction.—The serum reaction was tested in each case with one-day broth cultures in dilutions of 1 in 20, 1 in 40, and 1 in 100 under the microscope, with a time-limit of one hour, and only recorded as positive when all active motion of the bacilli had ceased within that time and good clumps had formed. Many of the cases were tested more than once and not infrequently during the later stages a reaction was obtained in a higher degree than in an earlier test, which could only be due to the actual presence of typhoid fever and not due to any previous attack.

Table III.—Showing Serum Reactions.

—	− 1 in 20.	+ 1 in 20.	+ 1 in 40.	+ 1 in 100.	Total.
First week ...	1	2	2	—	7
Second week...	7	2	3	10	22
Third week ...	6	1	6	7	20
Later	5	—	3	10	18
Total ...	19	5	14	27	67

Table III. shows the results of the serum reactions in each week of the disease and the degree of reaction obtained. The 19 negative reactions include seven cases in which no reaction was obtained, although six of them were twice tested, the day of the last test having been from the nineteenth to the thirtieth days. In one instance, however, the blood was not examined until the temperature had been normal for eight days, in which time a previously present agglutinating power may have disappeared (Horton Smith). In the other cases a positive reaction was obtained at a later date. Similarly some of the cases, which at the

first test gave only reactions in the lower dilutions, reacted in 1 in 100 at a later date. Reactions were obtained at some period of the disease in 43 cases, or 86 per cent. The cases which did not react have been diagnosed as enteric fever on account of the clinical evidence of the presence of this disease being very strong and being confirmed by the leucocyte count to be described immediately. It will be noted that in the great majority of the cases reactions in dilutions of 1 in 40 and upwards were obtained, which, in my experience, are quite conclusive of typhoid fever, although I have twice met with a reaction in a dilution of 1 in 40 one and two years respectively after a previous attack, but never up to 1 in 100 except during concurrent typhoid fever. The occasional absence of a reaction in cases of typhoid fever is an experience common to various observers, but I have not had any opportunity of making bacteriological examinations for the presence of the group of bacilli which have been found in the so-called paratyphoid fevers in America recently, so I cannot say if they should be classed as such or not.

The lymphocyte increase in typhoid fever.—I have elsewhere[8] drawn attention to the value of a marked increase of the percentage of lymphocytes without any noteworthy increase of the large mononuclear white corpuscles in differentiating typhoid from malarial remittent fevers, and subsequent experience of a large number of cases has amply confirmed, and in some respects extended, my earlier results. My former paper on this subject was largely based on cases of fever in natives who very frequently do not come to hospital until far on in the disease, so that the great majority of the cases were not examined until the third or fourth week when a well-marked lymphocyte increase was nearly uniformly met with in uncomplicated cases. In the present series in Europeans many were examined in the earlier stages, so that they furnish a better evidence as to the diagnostic value of this change in the blood. In the following table the number of examinations in each week of the disease in which varying degrees of lymphocyte increase were found is shown in a convenient form for studying the degree and frequency of the change.

TABLE IV.—*Showing Lymphocyte Increase in Typhoid Fever.*

	First week—No increase = 26.			Increased = 46.				Total.
Number of lymphocytes.	0-20	20-25	25-30	30-35	35-40	40-50	50	
First week	—	—	2	1	1	1	—	5
Second week ...	3	—	7	4	5	4	1	24
Third week	4	1	1	2	3	5	4	20
Later	4	3	1	3	2	7	3	23
Totals	11	4	11	10	11	17	8	72

Of the 50 cases there were no increase in 12 and an increase in 38 cases, or 72 per cent.

From the above table it appears that the lymphocytes were increased above the normal limit of 30 per cent. in about three-quarters of the cases, and this change may even be found in the first week, in the majority of the cases in the second week, and in almost three-quarters of them during the third week of the disease, when it frequently reaches a high degree. Its value, however, is even greater than these figures denote, for as a rule the cases in which it is absent are of a severe type which can be recognised as probably typhoid fever at a glance, while in the mildest cases it is usually particularly well marked; that is just where it is most wanted. The absence of the lymphocyte increase late in the disease is a bad prognostic sign, while when a severe case in which it has been absent begins to improve it rapidly appears, so that there seems to be some relationship between the establishment of immunity and the lymphocyte increase. When in a case of continued fever the lymphocytes are increased, and especially if over 35 per cent. are found, and at the same time there is no marked increase of the large mononuclears (which is so characteristic of malaria), then it is exceedingly likely to be a case of typhoid fever. In cases of malarial remittent fever a similar count may rarely be obtained at the height of the daily rise of temperature; but in these cases the total number of leucocytes present will be very greatly reduced, usually to about 1000 per cubic millimetre—a condition which I have only seen in malarial and never in typhoid fever cases. It is important, then, to note the percentage of large mononuclears met with in the series of typhoid fever cases, so that they may be compared with that of the malarial series to be dealt with presently. Table V. shows the results obtained.

TABLE V.—*Showing Large Mononuclear White Corpuscles in Typhoid Fever.*

—	Normal.			In excess.		Total.
Percentages	0-4	4-8	8-10	11-15	+ 15	—
Total examinations	37	24	4	4	3	72
First and second weeks ...	—	—	1	1	1	—
Third week	—	—	—	—	—	—
Later	—	—	3	3	2	—

From this table we find that in only 11 out of 72 examinations were the large mononuclears above the normal 8 per cent. and in only three was the increase found during the first three weeks of the fever when the diagnosis might possibly have been in doubt. In one of these malarial parasites were found in the blood, the large mononuclears having numbered 18 per cent.; and in another, in which 15 6 per cent. were found, typhoid fever had supervened on a malarial fever; and in the remaining one there were reasons for believing that the typhoid fever was also complicated by malaria. The highest number of large mononuclears met with in a patient suffering from typhoid fever was 18 per cent., and malarial parasites were also found in the blood at the same time as a Widal reaction was obtained in a dilution of 1 in 100 (Case 6). In the remaining instances in which over 10 per cent. were found the fever had reached from the thirty-fourth to the seventy-ninth day and normal numbers of large mononuclears had been found in the earlier stages. It is clear, then, that the occasional high percentage of these corpuscles in the blood of typhoid fever patients in the earlier stages of the disease usually denotes coincident occurrence of malarial infection which requires appropriate treatment; while in the later stages there may be some increase after the end of the third week in prolonged cases of pure typhoid fever, but this can scarcely mislead at such a late period of the disease. A similar late large mononuclear increase has been recorded by Winter in Dublin.[9] As we shall see immediately, a marked large mononuclear increase is so characteristic of malarial remittent fevers that its absence should lead to a suspicion of typhoid fever as against malaria, and that, too, even in the absence of a marked increase of the lymphocytes. I have several times correctly diagnosed cases of typhoid fever in an early stage by this point, leucocytosis of pneumonia or cerebro-spinal fever, &c., being also absent.

TYPHOID FEVER IN NATIVES OF INDIA.

The frequency or otherwise of typhoid fever in natives of India was a perennial source of controversy in the pre-Widal days. As the subject is of great importance in relationship to the so-called "non-malarial remittent" fever of Dr. Crombie it must be briefly referred to here, reference being made to a paper in which I dealt more fully with the subject a year ago for further details.[10] Dr. Crombie used to hold that typhoid fever very rarely occurs in natives and supported his conclusion by the statement that only three cases were returned as such in the large Medical College Hospital in the ten years 1880-89. By means of the serum test I found twice that number in the wards of the same hospital at one time and 11 cases in five months. That number has in the course of 18 months been increased to 26, together with others in different hospitals and institutions in Calcutta; while reactions in high dilutions have also been obtained with the blood of native fever patients sent to me from various parts of Bengal. Lamb has also obtained similar results in Bombay. Clinically they do not differ essentially from the same disease in Europeans, only they tend to be more severe and fatal on account of the late stage of the disease in which they are commonly admitted; while bronchial affections are more common and diarrhœa

[8] Ibid., April 5th, 1902.

[9] Dublin Journal of Medical Science, October, 1901.

[10] Indian Medical Gazette, January, 1902.

less so than in Europeans, the stools being less typical, probably on account of the largely vegetarian diet of the great majority of the patients. The disease is also somewhat more common among children in natives, no doubt on account of their greater exposure to insanitary conditions. More important are the duration and type of the fever for comparison with those of other fevers. Out of 21 cases of typhoid fever in natives, with confirmation by Widal's test in the Medical College Hospital, of which I have full notes, five died before the end of the third week. Of the remainder all but one suffered from fever for three weeks or more, the exception having only given a reaction in a dilution of 1 in 20, and clinically also the diagnosis of typhoid fever was not quite beyond suspicion. Nine cases lost their fever between the twenty-first and the twenty-fifth days and the other six at later dates. These results agree closely with those recorded above in typhoid fever in Europeans and lend no support to the view that the disease is commonly abortive and of short duration in natives, although it may very occasionally be so. With regard to the type of the disease, in just half of the cases the "continued" type, as defined above, was observed; that is a somewhat smaller proportion than in Europeans, possibly due to the greater frequency of complication with a malarial element in the case of natives. In the other cases the fever was of a remittent type, although usually less markedly so than in true malarial remittent fevers. Abdominal symptoms, such as distension, tympanites, or pain, were nearly always met with at some period of the disease—a most important clinical diagnostic feature. With regard to the serum test, reactions in dilutions of 1 in 20 only were obtained in two; in 1 in 40 in six more; and in 1 in 100 in 18 cases—a result closely comparable with those in Europeans. Similarly with the leucocyte count: in two-thirds of 30 examinations a lymphocyte increase to above 30 per cent. was found, in all but four of which over 35 per cent. were present. On the other hand, in 27 examinations the large mononuclears were not over the normal limit of 8 per cent., and in the remaining three cases they were under 9 per cent., which, we shall see presently, clearly differentiates them from malarial remittent fevers.

The above brief summary is sufficient to prove that typhoid fever is a common continued fever of natives of India and that it differs in no noteworthy respect from the same disease in Europeans in this country.

MALARIAL REMITTENT FEVERS.

We next have to deal with the great class of malarial remittent fevers the differentiation of which from typhoid fever in their earlier stages is in many instances one of the most difficult problems in tropical medicine. In the first place we must define the term "remittent" and draw some line between it and intermittent cases, for these terms are often very loosely used, different meanings being attached to them by various observers. For instance, in many cases of malignant tertian malarial fever the temperature remains high for some 36 hours and then falls to about normal for a few hours before the same cycle is repeated. This is essentially an intermittent type and the term "remittent" should be reserved for those cases in which the temperature remains well above the normal line for some days. In an analysis of the General Hospital records to ascertain the seasonal prevalence of the different forms of fever, therefore, I adopted the plan of classing cases under the head of "remittent fever" only when the temperature did not fall below 100° F. for two or more clear days and the following data are also based on a series of cases complying with this definition. I find in my tables 29 cases of acute malarial remittent fever in the European General Hospital which both the clinical course and the result of the exhibition of quinine clearly proved to be malarial. Further, they were all examined by the serum test for both typhoid and Malta fever with negative results in all but one man who had suffered from a severe attack of typhoid fever in South Africa two years before and whose blood gave a reaction in a dilution of 1 in 40. All these cases had been liberally dosed with quinine before I had an opportunity of examining their blood, so that the fact that in only a small proportion of them were malarial parasites found in no way negatives their malarial nature. Moreover, as we shall see presently, nearly all of them showed the typical large mononuclear increase of malaria, which fortunately is not masked by quinine and hence has a peculiar diagnostic value in such a series as this. By analysing them in a similar manner to the former series of typhoid fever cases we shall be able to get a clear idea of the diagnostic value in the two fevers of the blood changes; and if these are found to afford sufficient ground for believing that the two diseases have been separated with a considerable degree of accuracy then a comparison of the course and symptoms in the two series may be expected to furnish us with some useful data for their clinical diagnosis. They may be conveniently considered in the same order as in the cases of typhoid fever.

The qualifying term "acute" malarial remittent fever is used above in order to exclude cases of chronic malarial fever—best designated by the valuable old, but comprehensive, term malarial cachexia (which workers in the malarious parts of India desire to see restored to the official nomenclature of the Royal College of Physicians of London)—for in these also the remittent type of fever occurs now and then interspersed in the generally intermittent course of the disease. As I have recently showed elsewhere,[11] there are certain special blood changes of great importance found in such cases—namely, an extreme reduction in the total number of the white corpuscles, accompanied by a great relative reduction in the polynuclears, with a corresponding increase in the percentage of the lymphocytes as well as the typical increase of the large mononuclears of acute malaria if marked fever is present. These changes are of great prognostic value and I have suggested that they may explain the great resistance of such cases to ordinary doses of quinine and also the success I have recently had with very large ones by the mouth or the hypodermic use of the drug in chronic malaria. Interesting as this class of cases are they fall beyond the scope of the present paper, for they cannot well be mistaken for typhoid or other "continued" fevers.

Age incidence.—This is shown in Table VI.:—

TABLE VI.—*Showing Age Incidence.*

Years	5-10	11-15	16-20	21-25	26-30	31-40	Over 40
Cases	2	3	10	4	6	3	1

This shows a very similar incidence to that of typhoid fever, so that no diagnostic import attaches to the ages of the patients in the case of these two fevers.

The duration of the fever.—This is of much greater importance, for we have seen that typhoid fever very rarely runs a course of much under three weeks. In Table VII. the total duration of the fever both before and after admission is given in the second line and the time the fever lasted under treatment in the hospital, where quinine was always given in smaller or larger doses, is shown in the third line:—

TABLE VII.—*Showing Duration of Fever.*

Duration of fever in days	1-7	8-14	15-20	21-25	26-30	31-40	Over 40
Total duration	3	8	8	2	4	1	3
Fever in hospital	12	11	3	2	1	—	—

Here we see a marked difference from typhoid fever the duration of which exceeded 20 days in four-fifths of the cases and in only 4 per cent. ended within two weeks. Still more marked is the difference in the duration of the fever after coming under treatment, for the majority of the cases of typhoid fever were admitted during the first week of the disease and therefore had two weeks or more fever in hospital, while in the case of the malarial remittent fevers under treatment with quinine almost four-fifths came to an end within 14 days of admission and over one-third within one week. This is in agreement with the conclusion I came to over a year ago[12] with regard to continued and remittent fevers in natives (excluding cases of malarial cachexia)—namely, that upwards of 80 per cent. of such fevers which lasted three weeks or more were typhoid fever.

Clinical characters.—The chief points in which acute malarial remittent fevers differ from typhoid fever are mainly of a negative character. Thus, in the former diarrhœa, abdominal distension and pain, rose spots, and bronchial catarrh are absent or rarely met with. Hæmorrhage from the bowel is very rare except when dysentery complicates the disease. On the other hand, the spleen is much more frequently and markedly enlarged in the malarial remittent fevers and the liver is also frequently to be felt below the ribs. A history of chill or rigors or fever on and off for some time previously is in favour of a diagnosis of malarial remittent fever but it is also

[11] Ibid., November, 1902.
[12] Ibid., January, 1902.

not very rarely obtained in cases of typhoid fever in the tropics so that it cannot be relied on very much.

The temperature curve.—This is of great importance, for although the remittent type is commonly seen in typhoid fever yet the rises and falls are, as a rule, much more regular and punctual to the hour in malarial remittent fevers and also usually of greater amplitude. When the rises occur regularly at some other period of the 24 hours than the afternoon or early evening, the case is nearly certain to be malarial. Of even greater value is the fact that in all my charts I can only find one case of malarial remittent fever in which the temperature remained within 2° for upwards of 48 hours, and at a height of above 101°, unless there was some complication such as pneumonia. Every other case in which this continued type of a high degree was present proved to be enteric fever and not malarial. Of course a similar type is common in pneumonia but here the presence of leucocytosis will exclude uncomplicated typhoid fever. As this continued type is most frequently seen during the first and second weeks of typhoid fever it is of very great diagnostic value and has frequently enabled me correctly to diagnose typhoid fever in an early stage of the disease before other definite symptoms were present; and I look on the establishment of this point by means of my study of a large number of four-hour charts of continued and remittent fevers controlled by serum and blood tests as a most important practical outcome of this investigation. The contrary, of course, does not hold good, for, as we have seen, the curve in true typhoid fever may be remittent, or even rarely intermittent, and may also occasionally show as great regularity of the remissions as in malarial cases. There remain, then, a number of cases in which the temperature curve will not be of any material service and it is in these that the serum tests and leucocyte counts are of such great value.

The pulse-rate.—It is a well-known feature of typhoid fever that the pulse may remain below 100 per minute persistently for days when the temperature is raised to 103° or 104°, especially in cases which are running a favourable course. A large proportion of my cases have shown this point in a well-marked degree. On the other hand, I can only find one chart out of a number in which the pulse-rate was recorded in which it remained persistently below 100 per minute in malarial remittent fevers and this was a very mild one in which the temperature never rose above 101·2°. This slow pulse-rate when present is a valuable point in favour of typhoid as against malarial remittent fever, while it is most frequently seen in the mild cases which are most difficult to diagnose by purely clinical means.

The malarial parasites.—As already mentioned, all the cases here dealt with had been saturated with quinine for some days before I was able to examine them, so that the parasites were seldom found in the single slide made on the one or, rarely, two occasions when the blood was tested. When present they were always of the malignant tertian variety, but out of the 29 cases referred to above, in only six of them, or 20·7 per cent., were they detected, Romanowsky's stain being always used. This agrees closely with Captain Delany's results in the Medical College Hospital, Calcutta, in very similar circumstances.[13] In two cases, however, the temperature had finally reached normal before they were examined, and in three more it was on its final fall. If these are excluded as extremely unlikely to show parasites, then they were found in 25 per cent. of the remaining cases.

The serum reaction, as already mentioned, was negative, except in one man who had had typhoid fever two years before. That for Malta fever was also negative, except that in one or two cases a clumping in a dilution of only 1 in 10 occurred, as happens occasionally, in my experience, in normal bloods and in those of persons suffering from various diseases other than Malta fever.[14]

The large mononuclear increase in malarial remittent fever.—Table VIII. shows the percentage of large mononuclears found in 34 examinations of the blood, arranged in the same way as that already given for typhoid fever cases, except that they are classed in accordance with the temperature when the film was taken instead of the week of the disease—the former having an important influence, for, as shown by Dr. Christophers and Dr. Stephens,[15] the large mononuclear increase becomes less marked as the temperature rises.

[13] Brit. Med. Jour., March 28th, 1903.
[14] Indian Medical Gazette, October, 1902.
[15] Report of the Malaria Commission of the Royal Society.

TABLE VIII.—*Showing the Large Mononuclear Increase in Malarial Remittent Fevers.*

—	Normal or slightly increased.			Markedly increased, 30.			Total.
Percentages...	0-4	4-8	8-11	11-15	15-20	Over 20	
Temp. – 101° F.... ...	0	2	1	7	7	4	21
Temp. + 101° F.... ...	0	1	0	8	3	1	13
Total	0	3	1	15	10	5	34

We see from Table VIII. that in only four out of 34 examinations were the large mononuclears less than 11 per cent., and in one of these they were increased over that number at a second examination when the temperature had fallen to normal. This is just the reverse of what we found to be the case in typhoid fever, in only two cases of which during the first three weeks of the disease were over 11 per cent. large mononuclears found, and these were complicated by malaria, so that by the leucocyte count alone the two forms of remittent fever can almost invariably be differentiated. It will also be observed that the highest percentages of large mononuclears are met with in examinations made when the temperature is below 101°, as compared with those made when it is above that point, which is in accordance with the observations of other workers on malaria, as mentioned above.

TABLE IX.—*Showing the Lymphocytes in Malarial Remittent Fevers.*

—	Normal, 23.			Increased, 11.				Total.
Percentages ...	0-02	20-25	25-30	30-35	35-40	40-50	50	
Number of examinations... ...	7	8	8	4	3	3	1	34

From Table IX. we see that more than two-thirds of the cases showed no increase of the lymphocytes while a marked increase was quite exceptional instead of being the rule, as in typhoid fever. These two points taken together are of very great value in the differential diagnosis of the two fevers and will very rarely indeed mislead if the precaution is taken of examining the blood in the morning during a remission of the fever in cases suspected to be malarial, for it is at this time that the increase of the large mononuclears is best marked.

The quinine test.—Before leaving the subject of the malarial remittent fevers we must discuss how far the diagnosis of malarial remittent fever made by means of the differential leucocyte counts has been borne out by the results of subsequent anti-malarial treatment, for unless they will stand this test in patients not yet the subject of marked malarial cachexia they cannot be relied on. Now in several of these cases the patients had been taking quinine in 10-grain doses three times a day by the mouth for a week or more with little or no effect on the temperature curve and this would be held by some to be sufficient to prove that they were not of a malarial nature. This opinion may be true of malaria in some countries but it is utterly untrue of many cases of malaria as seen in Lower Bengal and other parts of India—a point on which I cannot lay too much stress as this fallacy has been responsible for much lingering fever and many deaths. During the last fever season at the Calcutta General Hospital as soon as a large mononuclear increase has been found in cases which have resisted quinine by the mouth the drug has been given hypodermically in from 5 grain to 10 grain doses twice a day, the bi-hydrochlorate being used and injected into the subcutaneous tissues. The results have been admirable, for in case after case the temperature has fallen to normal in two or three days. The leucocyte count, then, has come triumphantly out of the ordeal of the quinine test, although in most of these cases no parasites could be found in the peripheral circulation and fortunately no opportunity of finding them after death has occurred, although a few years back necropsies were not very rare in this class of cases, especially when quinine was ordered to be given only when the temperature was below a certain point, with the

result that the drug was reduced in direct proportion to the severity of the case, instead of being increased.

Are there any continued or remittent fevers other than typhoid fever and malarial fever?—As already mentioned, this investigation was started with the object of separating out the known fevers with a view to studying the undifferentiated ones described clinically by Dr. Crombie and others, with whom I quite thought that such existed. So far I have dealt with 50 cases of typhoid fever and 29 cases of acute malarial remittent fever. In addition to these, six cases of chronic malarial remittent fever and 11 more cases of malarial intermittent fever are included in my European series, making a total of 96 cases out of the 126 cases examined in the General Hospital. Among the remaining cases we first have a miscellaneous assortment, including cases of phthisis, pneumonia, cerebro-spinal fever, liver abscess, cellulitis, and other local inflammatory conditions, all showing varying degrees of leucocytosis which in several cases materially assisted the diagnosis. For example, in one case malarial parasites were believed to have been found by the medical officer in charge but the fever increased steadily in spite of hypodermic injections of quinine and I was asked to examine the blood. Finding leucocytosis (13,000) and pain over the liver and in the right shoulder, I diagnosed liver abscess but the supposed parasite had greater weight than the leucocyte count and the patient was sent on a voyage to Colombo, where his liver abscess was successfully opened. In another case a child suffered from an obscure fever and two examinations of the blood failed to reveal any evidence of either malaria or typhoid fever, the case soon after developing into one of tabes mesenterica. In two other cases an irregular fever with some degree of leucocytosis accompanied dysentery, probably of the amœbic type.

When all the above well-known diseases are excluded, what have we left in the way of continued fevers? Practically nothing. Some three or four cases, all in the first 20 examined when my experience was very limited, remain, and looking at the notes and charts of these in the light of my present experience I cannot find one which repeated examination would not in all probability have proved to be either typhoid fever or malarial. One of these I thought at the time might correspond with the type which Dr. Patrick Manson describes under the term "double continued fever" but I have since seen very similar cases which proved to be malarial and yielded to full doses of quinine. In my last 100 cases I have met with very few doubtful ones and none which I have any good reason for thinking might be a new and undifferentiated fever, disappointing as it is to have to say so. What, then, are the cases described by Dr. Crombie as new continued fevers?

"SIMPLE CONTINUED FEVER."

Dr. Crombie holds that three-quarters of the cases which are wrongly returned under the head of ague belong to the class he terms "simple continued fever." He describes them as often ushered in with a rigor, followed by high fever, with headache and gastric disturbance, and lasting from three to eight days, but sometimes resembling a mild attack of typhoid fever and going on for two, three, or four weeks, in which case he calls it "Calcutta fever." They are most commonly attributed to "exposure to the sun." Now in the year Dr. Crombie's address before the Indian Medical Congress on fevers was published I undertook an investigation of 100 consecutive fever cases in a native regiment stationed in Chota Nagpur; and a microscopical examination of the blood and an analysis of the symptoms convinced me that they were all malarial. "Simple continued fever," however, has been very commonly diagnosed in the Calcutta General Hospital by those who had the advantage of studying there under Dr. Crombie himself and several cases quite typically as he describes them, which had been diagnosed under this term, are included in my table of cases. Each of them showed the large mononuclear increase of malaria; several showed a typical tertian character, and they were each cured with quinine. I have not yet had an opportunity of examining these cases immediately on admission before they had taken quinine, so I am not prepared to state positively that there are not non-malarial fevers of this type; but if so I am certain that they are not anything like as common as Dr. Crombie holds, but I hope to be able further to investigate this point before very long. In the meantime some light may perhaps be thrown on the subject by a comparison of the seasonal incidence of the cases returned as simple continued fever and as malarial intermittent fever respectively; for if they are quite different diseases, and especially if the former is commonly due to exposure to the sun, this should be quite different, for the malarial season in Calcutta is the rainy one when the sun is seldom seen. In the lowest part of the accompanying charts the cases returned under these two heads month by month during the last three years are shown, the cases of malarial intermittent fever being represented by the uninterrupted lines and those of the simple continued fever by the broken ones. I find it has been more or less the custom in this hospital to look on short fever cases with any enlargement of the spleen as undoubtedly malarial and of those without any enlargement as being very probably "simple continued fever," especially if there was no history of chill or rigor. Now one of the first things which strikes a medical man on going to India is the frequency with which typical ague is absent in purely malarial fevers, especially malignant tertians. Further, in first attacks, which will be most frequent at the beginning of the fever season, the spleen will not yet be enlarged. Cases of malarial intermittent fever without enlargement of the spleen will occur in greatest numbers at the beginning and be fewest at the end of the malarial fever season when they will more frequently show an enlarged spleen due to repeated attacks of the disease. If now we examine the chart of the cases diagnosed under these two headings for the years 1900 and 1901 we see that in both years the two coincide very closely, both in monthly incidence and in number, the only difference being that in the first year the curve of the so-called "simple continued fevers" both rose and fell a month earlier than the malarial cases, this being precisely what might have been expected if all the cases were really malarial in nature but those without enlargement of the spleen had more frequently been wrongly called "simple continued fever." During the year 1902 it will be observed that this supposed new fever has nearly completely disappeared, especially during the malarial fever season, while at the same time greater attention has been paid to the use of the microscope in the diagnosis of the fever cases. This agrees with my former conclusion that nearly if not quite all of these short fevers are malarial in nature and that "simple continued fever," if it exists at all, is an uncommon disease and should not be diagnosed until malaria has been excluded by an examination for malarial parasites, or, if quinine has already been taken, also for the large mononuclear increase. It is also worthy of note in connexion with the supposed relationship between "simple continued fever" and "exposure to the sun" that the cases returned under this head are fewest during the dry, hot months of March to May and greatest in the cloudy months of the rainy season. The existence of "simple continued fever" as a separate specific disease still remains to be proved.

"NON-MALARIAL REMITTENT FEVER."

Next we come to the fever which Dr. Crombie describes under the above term and which he regards as the most important tropical fever the specific organism of which awaits its discoverer. It has been a great disappointment to me not to have been able to find this fever to exist at all, as I believed it did when I began this investigation; but on reading over again Dr. Crombie's description of the disease the mistake into which he has fallen is quite easy to understand in the pre-Widal and leucocyte-count days. To make the matter clear it will be necessary to quote from his writings on the subject, bearing in mind his statement that true typhoid fever is very rare in natives of India and that only three cases were returned as such in the large Medical College Hospital in the ten years 1880–89. He summarises his description of it in these words: "This condition, one of persistent high temperature without any marked remission, a distinctly enlarged and congested liver with bilious diarrhœa, a congestion of the back of both lungs, and a low muttering delirium, is generally reached by the eighteenth to the twenty-fourth day. If coma supervenes the patient frequently dies at this period." He also states that quinine has no effect on the fever and that although he has seen it in Europeans yet "it is essentially a disease of natives and is not common after 30 years of age." With the exception of the absence of the yellow stools of typhoid fever in Europeans, no doubt owing to the vegetarian diet of most poor natives, this appears to me to be as good a description of typhoid fever as I have seen; yet it is prefaced by the remarkable statement that the fever "is by some considered to be a variety of typhoid fever *notwithstanding its divergence from all the symptoms of that disease.*" It agrees absolutely with the large number of cases of typhoid fever

in natives verified by Widal's test during the last 18 months in the Medical College Hospital. Further, every such case with the continued type of fever and the absence of pneumonia, &c., in this hospital has proved on blood examination to be typhoid fever, so unless Dr. Crombie's fever has disappeared and typhoid fever has taken its place in the last few years there can be no doubt that his "non-malarial remittent fever" so commonly occurring in natives who according to him are nearly completely immune to typhoid fever is nothing but typhoid fever in natives.

As already mentioned, I have not been able to find any case of such a continued fever as Dr. Crombie describes in the European General Hospital which has not proved to be either typhoid or malarial. It is worthy of note that he mentions that in his supposed new continued fever "the temperature is generally very high, touching 104° and 105° for a long part of its course, the daily fluctuations not exceeding 2° to 2·5° F." Now we have seen that all such cases have been proved by the serum test to be typhoid fever. This question may also be examined in the light of the seasonal incidence of typhoid fever as opposed to all other continued and remittent fever, including malarial remittent fever. The middle curve of the charts already referred to shows all the latter cases and the top one all the typhoid fever cases for the last three years in the European General Hospital. The maximum typhoid fever season is a very definite one, being reached in each year in the dry cold weather and hot weather months (for we have no spring in Bengal) in the first five months of the year and thus corresponds with the minimum malarial fever season. In the first two years charted there is also a slighter rise in the curve in the rainy malarious months but this is absent in the last year when the serum test was regularly used. It would, however, have appeared as usual had not several cases which had originally been diagnosed as typhoid fever proved by the blood examinations to be malarial remittent fever. The rainy season small rises of the first two years were probably also due to a few cases of malarial remittent fever having been wrongly diagnosed as typhoid fever. If now we turn to the curve showing all the other remittent fever cases (all truly continued ones having proved to be typhoid fever) we find that the main rise in the curve each year is in the same months as the malarial remittent fevers were most prevalent. This is in exact agreement with the conclusion I have arrived at by means of the blood tests—namely, that the only remittent fever other than typhoid fever is the malarial remittent fever. A few cases were returned as "simple continued fever" but they showed the remittent type, as defined in a previous section in this paper, and they also occurred most commonly during the malarial season. These curves of the seasonal incidence of the remittent fevers other than typhoid fever, then, strongly support the view that all such cases are malarial and give no indication of the existence of any new undifferentiated fever in the tropics, the existence of which I now very gravely doubt.

LOW FEVER.

Although this is not, strictly speaking, a continued or remittent fever, but rather an intermittent one, yet as it is included under the former term by Dr. Crombie it may be briefly referred to in conclusion. I am glad in this case to be able to agree with him as to the existence of this as a clinically distinct fever, on which the few observations I have yet been able to make may perhaps throw a little fresh light. Dr. Crombie well describes it as "a persistent low elevation of fever temperature unaccompanied by any constant symptoms, of indefinite duration, and uninfluenced either by quinine or arsenic. The temperature never falls below 99° F. and rarely rises above 101·5°." It is met with in Europeans and causes much depression and is generally cured by a change of climate or a sea trip. I have, however, several times known it to recur on the patient's return to Bengal, even after long leave to England. In my experience also the rise of temperature is always in the afternoon and never at other odd times, as not unfrequently happens in malaria. I have only had an opportunity of examining the blood in a few cases of this fever but have always found a marked reduction in the total number of leucocytes, accompanied by a disproportionate decrease of the polynuclears and a corresponding increased percentage of lymphocytes. Thus the total count may be from 2000 to 5000 per cubic millimetre, while the polynuclears will be reduced to about 50 per cent., or even less, and the lymphocytes increased to 40 per cent., or even more. Now this is just the change met with in cases of malarial cachexia in the absence of active malarial fever, when the large mononuclear increase is not found. On the other hand, we know that when the general health is bad there is a tendency for a reduction of the polynuclears to occur and it may well be that long-continued exposure to the debilitating influences of a tropical climate may produce an exaggerated condition of this nature. This weakness and want of resisting powers may lead to a loss of complete control by the heat-regulating centres, allowing the body temperature to rise with the afternoon increase of that of the surrounding atmosphere. Against this simple explanation is the fact that I have on two occasions known more than one member of a family affected by this form of fever, which might be held by some to indicate its being of a specific nature; but, on the other hand, in one of these instances one of the two sufferers subsequently developed an attack of ordinary malarial fever. The curative effect of a change of air also points to its being a condition of debility rather than a specific fever and, although I am not prepared to dogmatise on the subject with such a small experience, I am inclined to think that the disease is climatic rather than specific and that latent malaria may play a large part in its causation. With regard to treatment, I have seen the fever disappear and at the same time the percentage of the polynuclears increase while oil of eucalyptus was being given—a drug which was suggested to me as useful in increasing the leucocytes by Sir Thomas Lauder Brunton; but my cases are too few to allow me to say definitely that the drug has a curative effect on this form of fever without further evidence.

MALTA FEVER.

This concludes the discussion of the different forms of continued fever which have been described as occurring in the tropics, with the exception of Malta fever. I have tested the blood of upwards of 100 cases of continued and remittent fever by the serum test with the Malta fever micrococcus but with entirely negative results with the exception of an occasional reaction in a dilution of 1 in 10 only, which I have given reasons elsewhere [16] for believing to be of no diagnostic value. I find records of cases in the General Hospital in sailors who have recently visited Mediterranean ports, so that our medical officers are familiar with the disease both from this and from their Netley experience; but I find that they are nearly all agreed in considering that this disease does not occur indigenously in Lower Bengal, whatever it may do in North-West India. This statement is equally true of Assam in my experience which is confirmed by that of Major Ronald Ross.

ILLUSTRATIVE CASES.

The 12 following cases have been selected to illustrate the most important points dealt with in this paper. Cases 1 to 6 were cases of typhoid fever and Cases 7 to 12 were cases of malarial remittent fever.

CASE 1 (Serial No. 14).—Clinically this was a typical case of typhoid fever. The Widal reaction was negative on the fifteenth and twenty-fifth days. The lymphocytes increased to 38·2 on the fifteenth and to 47 per cent. on the twenty-fifth day, without any increase of the large mononuclears. A chart shows the continued type of fever from the ninth to the eleventh and from the thirteenth and fourteenth days, the temperature not having varied more than 2° on those days.

CASE 2 (Serial No. 19).—This was an abortive case of typhoid fever which was not suspected to be such until a brother and sister were admitted for fever and I found that all three gave a positive Widal reaction for typhoid fever, as did two more of the same family admitted shortly after. The fever in this case lasted only 14 days, yet the lymphocyte increase was very marked, 50·4 per cent. being found. In my experience these mild cases, as a rule, show it particularly well.

CASE 3 (Serial No. 48).—This case precisely resembled No. 2, except that the reaction for typhoid fever was negative on the seventh and twenty-first days; but the lymphocyte increase was well marked, 48·8 per cent., on the second examination, the large mononuclears not being increased, so that I am inclined to regard it as an abortive case of typhoid fever, or it may possibly belong to the class recently called paratyphoid fever. It was one of the very few doubtful cases in the series.

CASE 4 (Serial No. 41).—This case is of interest from

[16] Indian Medical Gazette, October, 1902.

several points of view. Clinically, it was for some time regarded as malarial in nature. On examining the blood on the ninth day the Widal reaction was negative but the lymphocytes numbered 39·6 per cent. without any increase of the large mononuclears and I diagnosed the case as typhoid fever on the strength of the leucocyte count. On the eighteenth day a second examination was made and now a positive Widal reaction for typhoid fever was obtained, while the leucocyte count remained practically the same, my diagnosis in the early stages thus being confirmed. I have met with other cases in which I have correctly diagnosed typhoid fever by the leucocyte count before the appearance of the serum reaction, the latter having given a positive result at a later stage of the disease. Another point of interest is the intermittent type of the fever, the patient having been a child, this type of typhoid fever not being very rare in children.

CASE 5 (Serial No. 56).—This was a typical very severe case of typhoid fever which proved fatal on the nineteenth day. It shows well the "continued type" of fever and also illustrates the absence of the lymphocyte increase in very severe cases which has already been mentioned as being of prognostic value.

CASE 6 (Serial No. 62).—This was a case of typhoid fever complicated by malaria admitted late in the disease and giving a serum reaction in a dilution of 1 in 100. The leucocyte count showed 18 per cent. of large mononuclears, which raised a suspicion of malaria and after some search a few malignant tertian malarial parasites were found. During convalescence a typical attack of malarial fever also occurred. The typhoid symptoms were severe and the temperature was of the "continued type," while the lymphocytes showed no increase during the height of the fever.

CASE 7 (Serial No. 7).—This was a case of remittent malarial fever showing well-marked fall of temperature every other day and an increase of the large mononuclears to 16·4 per cent. and yielding to quinine in five-grain doses every four hours. The case was diagnosed at first as one of "simple continued fever" and I have seen other similar cases which proved on examination with the microscope to be malarial in nature.

CASE 8 (Serial No. 89).—This was a case of severe malarial remittent fever yielding rapidly to quinine hypodermically. This is the only malarial case I have yet met with in which the temperature remained within 2° F. for two days. At the first examination of the blood, when the temperature was high, 12·4 per cent. of large mononuclears were found but three days later, when it had fallen to normal, they numbered 28 per cent.

CASE 9 (Serial No. 92).—This was a typical case of a malarial remittent fever rapidly cured by the hypodermic use of quinine after the failure of the drug in 10 grain doses three times a day by the mouth. No parasites could be found when the blood was examined four days after admission, when much quinine had been taken, but 15·6 per cent. of large mononuclears were present which enabled a correct diagnosis to be made.

CASE 10 (Serial No. 107).—This was another case of malarial remittent fever diagnosed by the large mononuclear increase, in spite of a positive reaction for typhoid fever due to a severe attack of the disease in South Africa two years before, and successfully treated by hypodermic injections of quinine.

CASE 11 (Serial No. 115).—This was another case of malarial remittent fever with 21·2 per cent. of large mononuclears and scanty malignant tertian parasites where recovery rapidly ensued with quinine injected hypodermically after failure of the drug by the mouth.

CASE 12 (Serial No. 122).—This was a case of malarial fever showing a double daily rise of temperature and was very resistant to treatment with quinine. The large mononuclears numbered 16·4 per cent. The patient left the hospital unrelieved. No parasites were found on the single occasion when the blood was examined after much quinine had been taken. These cases of double daily rise are in my experience particularly difficult to treat and they deserve closer examination.

CONCLUSION.

The general conclusion arrived at by the careful clinical and pathological study by modern blood tests of a large and consecutive series of cases of continued and remittent fevers in both Europeans and natives in the hospitals of Calcutta, then, is that only two forms exist, at any rate of long duration—namely, typhoid fever and malarial remittent fever. Further, these can be distinguished in a considerable proportion of the cases by purely clinical methods, of which the temperature curve and pulse-rate and presence or absence of abdominal symptoms and the action of quinine are the most important. The remainder can be differentiated by the serum test or by the differential leucocyte count in all but a very few exceptional cases, the leucocyte count being of special value in the tropics on account of its being available when parasites are absent as a result of previous quinine treatment and its not requiring a laboratory—laboratories being very few and far between in the tropics at the present time—while it also has some prognostic value.

"Simple continued fever," if it exists at all as a separate entity, which still remains to be proved, is very rare indeed as compared with malarial fevers. The so-called "non-malarial remittent" fever in natives has been shown by the serum test to be nothing but typhoid fever. Low fever is distinct clinically, but is probably the result of the debilitating influences of prolonged residence in a tropical climate, including latent malaria, and is not a new specific fever. Malta fever does not occur, or at least is exceedingly rare, in Lower Bengal and Assam.

ON CASES OF UNCOMPLICATED MYOCARDITIS IN CHILDREN.[1]

BY GEORGE CARPENTER, M.D. LOND.,
ASSISTANT PHYSICIAN TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN; LATE PHYSICIAN TO THE EVELINA HOSPITAL FOR SICK CHILDREN.

MYOCARDITIS has been divided into parenchymatous and interstitial and the lesions encountered are either circumscribed in single or multiple areas or are diffuse in their distribution. Further, the parenchymatous and the interstitial changes in the cardiac walls, although they may occur independently, are not infrequently associated in varying degrees. The degenerative changes in the muscle fibres, in the shape of albuminous, fatty, and waxy alterations caused by toxin poisoning, are met with in the initial stages of the infectious diseases and occur during convalescence; these also arise from other disorders and are now well known in the post-mortem room, but rarely is it possible to diagnose these changes during life, though they may be suspected. But parenchymatous myocarditis is not necessarily a fatal complaint, even when the symptoms are extremely well marked, as an illustration of my own, to be related later, will show.

Interstitial myocarditis, which is looked upon as a rare disease, is met with as an acute disorder, or as a chronic complaint of the cardiac wall which is thought to be rarer still. Of 56 cases of chronic myocarditis collected by Quain, but three occurred in children.[2] The commonly recognised causation of the acute disorder is pyæmia from bone and joint troubles. The common sequence is the formation of an abscess in the heart wall which either bursts into the pericardium, producing pericarditis, or into the endocardium and originates an acute cardiac aneurysm. Of 25 cases of abscess of the heart collected by Quain 14 of them occurred under 15 years of age.[3] On the other hand, pyæmic pericarditis may be associated with, and not be the cause of, interstitial myocarditis.

Acute myocarditis of rheumatic origin must be here mentioned, for although perhaps the changes in the heart muscle are usually more of the nature of parenchymatous degeneration than of interstitial inflammation, nevertheless these conditions are usually associated. Acute myocarditis has been found in connexion with old and with recent valvular disease and also with pericarditis. It has also been met with in scarlatinal pericarditis.

In regard to chronic interstitial myocarditis Dr Theodore Fisher[4] has called attention to the fact that small fibroid patches are frequently seen scattered through the heart

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[1] A paper read at the meeting of the Society for the Study of Disease in Children on Feb. 20th, 1903.

[2] Keating's Cyclopædia of the Diseases of Children, vol. ii., part 2, p. 841.

[3] Ibid., vol. ii., part 2, p. 840.

[4] Bristol Medico-Chirurgical Journal, March, 1900.

muscle in fatal cases of mitral stenosis. He gives an illustration of fibrous myocarditis in a lad 18 years old, associated with old aortic disease. He also relates a case of an infant four and a half months old who was found post mortem to have fibroid disease of the cardiac muscle and stenosis of the aortic valve. Chronic interstitial myocarditis may also be associated with adherent pericardium but it is not, however, in every case of hypertrophied heart from adherent pericardium that such changes can be found microscopically. Sclerotic patches in the heart may also take their origin in occlusion of the coronary arteries, syphilitic or otherwise. Syphilitic myocarditis, in the shape of solitary and multiple gummata, has been recorded in infants and children and Hektoen[5] has published a case of syphilitic interstitial myocarditis in an infant six weeks old. Dr. J. Porter Parkinson[6] has also shown to the society a syphilitic nodule in the heart of an infant, aged three months, which was composed of young inflammatory tissue in various stages of development, the adjacent muscle being infiltrated and destroyed.

Judging from the paucity of the literature on this subject it is a malady about which little is known and which therefore requires further attention on the part of those specially studying children's complaints. The following striking examples of so rare an affection as uncomplicated myocarditis appear to me to be of sufficient interest to bring them to the notice of members of this society, in the hope that by calling attention to myocarditis and to the necessity for combined action our knowledge on this subject may be materially strengthened thereby.

CASE 1.—The patient, a girl, aged six years, was the child of healthy parents, but with a strong family history of phthisis. She had a rash on her buttocks and "snuffles" soon after birth. She had been ailing for a month, her illness commencing with enlarged glands in the neck, and her mother said that she had wasted and suffered from a swollen abdomen and complained of pain at the pit of the stomach. When she was admitted into the Evelina Hospital on Sept. 3rd her face was dusky and her lips were blue. The cardiac impulse, which was feeble, was felt with difficulty outside the nipple line in the fifth interspace. The dulness commenced at the third left costal cartilage and extended well to the right of the sternum. A whistling systolic bruit was heard over the cardiac impulse and a systolic thrill was felt on placing the hand over the cardiac area. There were no adventitious sounds to be heard in the lungs. The abdominal walls were flaccid and the liver, which was pulsating, reached almost to her umbilicus. The spleen was not enlarged. She passed 18 ounces of urine during the first 24 hours; it was of a specific gravity of 1026 and it contained about one-third of albumin. The pulse-rate was 132 to the minute, the respiration-rate was 56 to the minute, and the temperature was 97·6° F. By the 6th the bruit was not to be heard and the liver was returning to the costal margin. Her general condition had greatly improved. On the 12th she was still blue round the mouth. The cardiac impulse, which was exaggerated, was felt half an inch outside the nipple line. There was no epigastric impulse and the area of cardiac dulness was not enlarged to the right. The first sounds at the apex and the left base were reduplicated. The liver was now on a level with the costal margin. The specific gravity of the urine was 1024, 18 ounces were passed, and it contained one-eighth albumin; there were no casts. The temperature was still subnormal. The pulse-rate was 100 to the minute and the respiration-rate was 32 to the minute. On the 15th there was a trace of albumin in the urine, on the 16th one-fortieth, on the 17th there was none, and it was subsequently free during her stay in the hospital. On Oct. 1st she was found to have paralysis of the soft palate and the knee-jerks could not be obtained. By the 22nd food ceased to pass by the nose and the soft palate had in great measure recovered; the knee-jerks were still absent. On Nov. 8th she got up and she was discharged on the 11th with a sound heart. Subsequent inquiries directed to her history revealed the fact that three weeks before her admission into the hospital she had "patches" on the throat for which the medical attendant ordered a paint, but she was not ill enough to be confined to her bed.

CASE 2.—The next case is that of a girl, aged nine years, who was admitted into the Evelina Hospital on Sept. 2nd for a swollen abdomen and shortness of breath. The former trouble was supposed to have started in the preceding January. Her father suffered from heart disease. On admission she was a well-nourished, rosy-cheeked child and the most striking features of her case were a regurgitant venous pulse in the neck and an obviously pulsating liver. The pulse-rate was 112 to the minute, the respiration-rate was 46 to the minute, and her temperature was normal. The cardiac impulse was half an inch outside the nipple line; it was not well defined. There was a suspicion of a thrill to be felt there. The area of dulness, which commenced at the left third costal cartilage, extended half an inch to the right of the right sternal margin. There was no bruit. The lungs were normal. The spleen was not enlarged. The free edge of the liver was a hand's breadth below the costal margin in the nipple line. The urine was free from albumin. Whilst under observation she had paroxysmal attacks of facial cyanosis. Sometimes her lips were blue and sometimes the face was flushed. By Sept. 9th the liver had decreased in size and pulsation was not so marked. Several examinations of the urine had been made prior to this date but with negative result. On the 11th suddenly the face became very blue, the eyes were fixed and the limbs were rigid, the pulse was imperceptible at the wrist, and she died.

At the post-mortem examination the lungs were found to be very dropsical. The pericardium was healthy. The heart weighed nine ounces.[7] The left ventricle was pale, hypertrophied, and showed tabby-cat striation. The left auricle was dilated, thin, and pale. The endocardium was smooth. The mitral valve showed hæmorrhages at its root and in the valve itself; it admitted three fingers. The aorta presented patches of atheroma above the left coronary artery. The right ventricle was considerably dilated, pale, and showed tabby-cat striation. The right auricle was also much dilated, and its substance was pale. The liver, which was of the "nutmeg" type, weighed 2 pounds 14 ounces. The kidneys weighed 7½ ounces; they were heavy, hard, and leathery. The glomeruli were injected and the vessels of the medulla stood out prominently. The spleen was not enlarged. The stomach was congested.

Under the microscope the muscular fibres of the heart, for the most part, showed well-marked longitudinal striæ. In places the transverse striæ were well or fairly well marked but in others they required very careful focussing for their detection. On the other hand, though quite exceptionally, some fibres or portions of a fibre had a ground-glass appearance with obliteration of all striation. Accentuation of longitudinal striation and faintness or absence even of transverse striation were the prevailing characteristics. The muscle corpuscles with but few exceptions stained readily everywhere and many of them were very large and prominent. Certain microscopical fields showed an abundance of vessels; occasionally a small vein was found between the muscular bundles surrounded by a crowd of white corpuscles. Slight or an easily recognised increase of nucleation of the intermuscular areolar tissue with readily detected diapedesis of white corpuscles from the neighbouring capillaries was noticed throughout, together with proliferated areolar tissue cells; but here, again, areas were found where this had not occurred and the nuclei were quite within normal limits. Specimens stained with osmic acid were unaffected. The pericardium and the endocardium were free from abnormality.

In this case the cause of the interstitial myocarditis was not determined; in the next illustration, however, there appears to be no doubt that rheumatism originated the malady.

CASE 3.—A girl, aged eight years, was admitted into the Evelina Hospital on August 20th. Until two months previously she was perfectly well but she then developed rheumatism and subsequently suffered from chorea. On admission she had rheumatic synovitis of the left hand and wrist, the left ankle and the back of the corresponding foot, and a slight effusion into the left knee-joint. Her pulse-rate was 120 to the minute, the respiration-rate was 44 to the minute, and the temperature was 100·4° F. She had a loud mitral murmur which was audible at the angle of the scapula and a few rhonchi were detected in the lungs. Under salicylate of sodium the temperature had fallen to normal by the 27th. On Sept. 8th she was quite free from articular pains and fever, but there were great distress of breathing

[5] Carpenter, Syphilis of Children, p. 57.

[6] Reports of the Society for the Study of Disease in Children, vol. i., pp. 141, 142.

[7] Normal weight about four and one-third ounces.

and considerable præcordial pain. Neither the pulse-rate nor the respiration-rate had increased in frequency. The cardiac impulse was much diffused; it was felt in the sixth interspace half an inch outside the nipple line. Systolic and presystolic murmurs were now heard and a systolic thrill was felt in the fourth left intercostal space. The liver was greatly enlarged and its lower edge reached as far as the umbilicus. The spleen was not increased in size. The urine was free from albumin. The ankles were œdematous. By the 11th the pulse had assumed a peculiar form; alternate periods of from 10 to 20 beats succeeded one another with great regularity. The rate of one set of beats was about 120 to the minute and the rate of the other set was 60 to the minute. The respiratory movements did not undergo any corresponding change. She died quite suddenly on the morning of the 12th.

At the necropsy both lungs were extremely œdematous; many old, dry, cheesy deposits were found in the bronchial glands. The pericardium was normal. The heart was much enlarged. The left ventricle and auricle were dilated and the substance of the former was pale but not friable. The mitral valve, which was free from endocarditis, admitted four fingers. The aortic valves were healthy. Here and there in the substance of the ventricular wall yellowish dots and striæ were seen and the tips of the papillary muscles, especially those in relation with the mitral valve, were much spotted with yellowish deposits of about the size of a pin's head. An identical condition to the above obtained on the right side of the heart and here also the endocardium was free from disease. Under the microscope portions of the ventricular walls, taken at random, appeared to be quite healthy. On examining a dotted fragment it was seen that the muscular fibres in certain small areas had entirely disappeared, their place being occupied by countless oil globules of various sizes. Where it existed the change was extreme in degree though markedly circumscribed. The liver was greatly enlarged, it had a thick rounded edge, and was "nutmeg-like" on section. The spleen was normal. The pyramids of the kidneys were intensely congested. The other organs did not present any abnormality.

My next illustration is one of extensive focal myocarditis of a cicatricial nature and in this case the cause was not quite obvious, though possibly rheumatism played an important part in its genesis. There was no history or evidence of syphilis but there was a family history of consumption.

CASE 4.—A boy, aged 12 months, was admitted into the Evelina Hospital on Feb. 12th for disease of the hip-joint of four months' duration. Four months previously to Feb. 12th, according to the mother's statement, the back of the left foot, the left hand, and the wrist were swollen for about three days. During life the heart and lungs were apparently quite healthy. His temperature was above the normal whilst he was under observation, the highest point being 101° F. 48 hours after admission into the hospital he died suddenly.

At the necropsy miliary tubercles were found in the lungs, the liver, and the spleen. The synovial membrane of the hip-joint was thickened, but the bones appeared to be healthy. The pericardium was healthy. The left ventricle of the heart was dilated and scattered through its wall were a number of white areas, some rounded, others long and narrow, and many of them seemed to pass from the pericardium to the endocardium. The muscular substance where not involved looked healthy. There were two or three small rounded spots of infiltration in the substance of the right ventricle. The valves were normal. There was a valvular orifice at the foramen ovale.

On microscopical examination it was seen that areas of new growth invaded and broke up the muscle bundles from the pericardium to the endocardium. They were of varying sizes and when the microscopic sections were held up to the light it was seen that the outer half of the heart wall had been involved to the greater extent. Under the microscope were seen:—1. Wavy bundles of fibro-nuclear tissue with elongated wavy nuclei which sometimes invaded the muscle bundles and separated straggling muscle fibres from their fellows and here and there showed dense nuclear aggregation. Some of the muscle fibres thus isolated showed transverse striation, but in a few this appearance was lost and they were attenuated and opaque. 2. Areas where the connective-tissue fibrillæ were not so marked, though the nuclei were numerous and stained very well indeed. 3. Areas of varying sizes with increase of irregularly shaped nuclei in the intermuscular fibrillæ. The muscle corpuscles in such, in some instances, appeared to be quite large. 4. Areas, though few and far between, of perfectly healthy muscle fibre and connective tissue. 5. The endocardium much increased in thickness; the pericardium, where not joining the sclerosed tissue, unaltered. Although the endocardium was thickened the passage to it of sclerotic offshoots from the neighbouring muscle fibres was not a feature, but a nuclear increase in these was not uncommon, together with an undue separation of them from one another. The thickening often appeared to be quite independent of, and out of proportion to, any underlying mischief.

In conclusion, I should like to say that I have purposely confined myself to the narration of cases about which there can be no question as to the correctness of the diagnosis and I have intentionally omitted all reference to clinical cases of myocarditis complicated with pericarditis, peri- and endocarditis, adherent pericardium, and cardiac abscesses secondary to pyæmia.

I would also draw attention to the presence of systolic and presystolic murmurs in these free-from-endocarditis cases. It would appear that the mitral murmur merely requires for its production a leaking valve, that no roughness or irregularity of the segments is necessary to that end, and that a mitral murmur is not diagnostic of mitral endocarditis, though it is of mitral insufficiency; that the presystolic murmur and also the diastolic mitral murmur are indicative of a disturbance of the normal relationship that exists between the size of the mitral orifice and the left auricle; that when the latter is distended and the mitral ring is distorted the normal relationship disappears and leaves in its stead a *comparative* narrowing of the mitral orifice—in other words a comparative mitral stenosis for that particular heart; and that murmurs which depend upon these anatomical changes are indistinguishable clinically from the systolic and presystolic and diastolic murmurs of ordinary mitral disease and true mitral stenosis and that when these murmurs are present they are certainly much more in favour of endocarditis than the reverse by reason of the greater comparative frequency of that condition in heart disease, with the reservation that mitral stenosis in childhood is a rarity. Further, I would mention that I have heard similar murmurs produced in adherent pericardium associated with a dilated heart free from endocarditis as was pointed out by Dr. Theodore Fisher,[8] and in cases of pericarditis and myocarditis in which the endocardium of the valves was healthy.

But are not the clinical and pathological examples which I have just recorded the key to the explanation of the vanishing mitral murmurs which undoubtedly arise in some cases of acute rheumatism and of chorea and of the, in consequence, presumed recoveries from endocarditis and from supposed functional cardiac disorders? Do they not suggest that, in some instances at least, the supposed to be present endocarditis did not exist in reality? Do they not invite the conclusion that that which was present was a temporary softening and want of tone of the myocardium followed by dilatation and subsequent recovery, hence the appearance and disappearance of the mitral murmur. Such a condition of the cardiac muscle would also satisfactorily explain undue rapidity and irregularity of the heart's action in some cases of chorea. It would also explain in these cases of chorea one type of mitral murmur, that which is inconstant in both force and rhythm and is a not infrequent phenomenon in that disorder and which entirely disappears by the time the child has recovered or is found to have done so at a later visit. There is one strong point in favour of such a theory in explanation of these conditions and that is rheumatic myocarditis undoubtedly exists; we have clinical, supported by pathological, evidence of this. We also know that myocarditis can arise apart from endocarditis.

But myocarditis is not always attended by a mitral murmur even in an advanced condition of dilatation, nor is it always possible to map out the slightly dilated heart with precision; indeed, the softening might be so slight as to render its physical detection impossible but nevertheless capable of giving rise to definite symptoms. Some such supposition is also reasonable in explanation of the following examples of cardiac disturbance which I have noticed in rheumatic fever and with their recital I will bring this paper to a conclusion.

In one child, aged nine years, there was extreme weakness of the pulse without obvious lesion of the heart, though the

[8] Bristol Medico-Chirurgical Journal, 1894; Brit. Med. Jour., 1894.

first sound at the apex was almost inaudible. These symptoms lasted for about a fortnight and finally disappeared. In another child, aged five years, the pulse was intermittent and a little later a questionable systolic bruit was detected at the apex, but no further extension occurred, the intermission of the pulse disappeared, and the valvular sound once more became normal.

Welbeck-street, W.

MALIGNANT DISEASE OF THE COLON; 14 COLECTOMIES WITH 10 RECOVERIES.[1]

BY H. LITTLEWOOD, F.R.C.S. ENG.,

SURGEON TO THE LEEDS GENERAL INFIRMARY AND LECTURER ON PRACTICAL AND OPERATIVE SURGERY IN THE YORKSHIRE COLLEGE.

THIS paper is based on the study of about 26 cases of malignant disease of the colon which have occurred in my practice during the past four years. I have also included one case of malignant disease of the rectum; the disease was in the upper part and was removed by an abdominal proctectomy with end-to-end union, and for this reason I have added it to my list of colectomies. All the cases referred to were columnar carcinoma. I propose to deal with the subject under two headings (1) the diagnosis, and (2) the treatment. Under the heading of treatment I shall refer more particularly to the operation of colectomy. The cases of colectomy—14 in number—I have arranged in a special table, so that they can be more easily referred to; in these cases 10 of the patients made good recoveries and four died. In cases where colectomy is not possible or advisable owing to the general condition of the patient, the size and fixity of the growth, or the presence of secondary deposits, other operations may be required to relieve the patient, such as typhlotomy, colotomy, or the short-circuiting operation by lateral anastomosis.

DIAGNOSIS.

The diagnosis of malignant disease of the colon is sometimes quite an easy matter, but in the early stages of the disease it is often a matter of the greatest difficulty. Probably in all cases, when carefully inquired into, there is a history of increasing difficulty in getting the bowels opened. The patient may have noticed some blood or mucus in the motions. It is often only when these symptoms have increased so as to be a real inconvenience that the patient will consult a medical man. Many patients look upon constipation as an unimportant condition, for which they treat themselves by one or other of the natural mineral waters or patent pills which are now so seductively advertised. I feel that every patient suffering from constipation who consults a medical man should have the cause carefully investigated before any remedy is prescribed and that if possible malignant disease should be excluded, for it is in those cases in which an early diagnosis is made that we shall get the most encouraging results by means of operation. If a patient has been in the habit of having his bowels opened at regular intervals and this regularity has been interfered with, so that the intervals have increased in duration or there have been one or more definite attacks of obstruction associated with "colicky" pains and the presence of blood and mucus in the motions, then a very careful examination of the anus and rectum must be made to ascertain if the cause of the obstruction is in this region. I have not had much experience in using specula for rectal examinations; I feel I can rely more on my sense of touch than on my sense of sight. If nothing is found by rectal examination—and it is a great thing to be able to exclude the presence of anything in the rectum—then the abdomen must be carefully examined.

On thinking over the cases of malignant disease of the colon which I have seen I divide them into two classes: (1) those in which a very definite tumour is present; and (2) those in which there is a constricting ring of growth which it is often impossible to discover by abdominal palpation. I am inclined to think that the larger tumours are invariably found in the cæcum, the hepatic flexure, or in the transverse colon and that beyond this point in the colon a large growth is the exception. The commonest seats in which to find carcinoma of the colon are the flexures; growths are most difficult to discover in the splenic flexure as it is so deeply hidden beneath the ribs; next to this those in the hepatic flexure are most difficult to find unless the tumour is of considerable size. A very large tumour may be present and yet the patient may be unaware of its existence until its presence has been pointed out by the medical man. In Case 12, where there was the largest mass which I have yet removed, the patient knew nothing of its existence. I think that it may also be stated, as a general rule, that the bigger the growth and the nearer it is to the cæcum the less likely is there to be obstruction—for this reason, that the motions are more fluid in the cæcal region and the larger growths are less liable to contract and so to produce a narrowing at the point of growth. If no growth can be discovered and still malignant disease is suspected, enemata and the inflation of the colon may sometimes give valuable help in diagnosis, or it may be necessary to give an anæsthetic and to make a more complete examination by palpation, specula, &c., and there are some cases in which we so strongly suspect carcinoma that we may feel it wise to recommend an exploratory operation. This we did in Case 4, and it is the earliest case of malignant disease of the colon upon which I have operated. A method which I learned from Mr. T. P. Teale I have sometimes found very useful when the patient is under an anæsthetic—i.e., to pass a pair of vulsella high up and to pull down the mucous membrane; by this means a growth high up in the rectum or sigmoid flexure may be brought within reach. Let me here point out the dangers sometimes associated with the use of enemata—I have twice seen fatal peritonitis due to a malignant ulcer bursting into the peritoneum during the administration of an enema, and in Case 6 I believe another enema might have produced a fatal result.

Up to the present I have assumed that we have been examining a case before any very definite obstruction has occurred. We will now consider those cases in which on the first time we see the patient acute obstruction is present and it may be that this is well marked before the patient has even consulted any medical man. All the signs of acute obstruction may be present—the distended abdomen with or without visible peristalsis, the rapid pulse and the cold or discoloured extremities of fæcal toxæmia—and we may only be able to make a shrewd guess that the cause of the obstruction is malignant disease by excluding every cause which is more or less obvious. The age of the patient may help, but we must not forget that malignant disease may occur in quite young people; the youngest case (Case 11) in this series was 28 years of age.

TREATMENT.

If one sees the cases early and there is no intestinal obstruction then a primary enterectomy should be done and it often requires considerable judgment at the time of the operation to decide this point. I am quite convinced it was an error of judgment to perform a primary enterectomy in Case 11, but I shall refer to this later. There are several ways of doing the operation, many of them having good points, and naturally the surgeon will perform the operation best that he is most accustomed to. I am amongst those who believe that the suturing can be quite easily and efficiently accomplished without the aid of any of the special appliances which have been and are still being invented. Surgery is a handicraft and I hope will always continue so to remain, and not a branch of mechanical engineering, and it is the business of the surgeon to train his fingers so that he can use his needle with as much facility as a woman who makes any pretence to be a good needlewoman.

It is only during the last four years that I have had many opportunities of doing colectomy; my cases before this either had secondary growths or I thought that they were too ill to run the risk of a radical operation. My first colectomy has been already recorded.[2] The patient was a woman with intestinal obstruction. I did a preliminary typhlotomy and subsequently removed a mass from the ascending colon and united the divided ends by Halstead's method. Death occurred six months later when there were secondary deposits in the liver. Between this case and those which are included in the table of colectomies appended to this

[1] A paper read before the Leeds and West Riding Medico-Chirurgical Society on Oct. 18th, 1902.

[2] THE LANCET, Oct. 13th, 1894, p. 853.

TABLE SHOWING THE RESULTS OF 14 COLECTOMIES PERFORMED FOR MALIGNANT DISEASE OF THE COLON.

No. of case.	Sex.	Age.	Nature and position of disease.	History.	Signs and symptoms at the time of operation.	Nature and date of operation.	Result.	Remarks.
1	F.	57	Large mass in the cæcum.	The patient had been ill for two months. She had had a great deal of pain in the right iliac region and the back. There was some constipation but no vomiting. She had lost weight.	There was a large tumour in the region of the cæcum, which could be both seen and felt. The patient's chief symptom was pain.	On June 18th, 1900, the cæcum and part of the ascending colon and mesentery were removed; the ileum was stitched to the cut end of the ascending colon.	A good recovery.	In this case there was no obstruction. The presence of the tumour and pain were the prominent features. No secondary growths were noted at the time of operation.
2	F.	46	Large mass in the hepatic flexure.	The patient had been ill for about five months and was getting thinner. She was suffering from constipation and occasional attacks of vomiting were noticed.	There was a large tumour in the hepatic flexure. Constipation was present.	On July 25th, 1901, about ten inches of the colon and the corresponding mesentery were removed. End-to-end union was effected.	A good recovery and the patient is apparently now quite well.	The case was seen with Dr. A. Dennison of Burley. The tumour was the prominent feature in the case. No secondary growths were noticed at the time of operation.
3	M.	34	Large mass in the transverse colon.	The patient had complained of a dragging pain in the lower part of the abdomen since August, 1900. The tumour was noticed a month later. There was no constipation.	There was a tumour in the lower and right part of the umbilical region. It was freely movable and was of about the size of a closed fist.	On April 22nd, 1901, about six inches of the transverse colon, including growth, with mesentery, were removed. End-to-end union was effected.	A good recovery and the patient is apparently now quite well.	The case was sent to me by Mr. Edwin Lee of Dewsbury. The tumour was the prominent feature of the case. No secondary growths were noted at the time of operation.
4	M.	54	A small growth of the size of a florin in the splenic flexure near the mesenteric border involving about half of the lumen.	The patient thought that in September, 1900, he had strained himself whilst lifting; since then he had had on two occasions constipation and obstruction lasting for a fortnight. When in bed he was free from pain. He had been getting thinner.	The patient was suffering from constipation. There was no obstruction at the time of operation or evidence as to the cause of the obstruction. Early malignant disease was suspected.	On Nov. 22nd, 1900, a small malignant mass which was found in the splenic flexure was removed. End-to-end union was effected.	A good recovery and the patient is apparently now quite well.	The growth appeared to produce obstruction by tilting or possibly by producing a slight intussusception.
5	F.	37	Constricting mass of malignant disease in the splenic flexure.	The patient was apparently quite well until August 25th, 1900, when symptoms of complete obstruction revealed themselves.	There were well-marked signs of complete obstruction. The abdomen was distended, with well-marked visible peristalsis.	On Sept. 5th, 1900, the abdomen was explored in the middle line. The cæcum was enormously dilated and somewhat rotated. Typhlotomy was performed. On Oct. 22nd, 1900, a small ring of malignant growth was found in the splenic flexure and removed. End-to-end union was effected.	A good recovery and the patient is quite well at the present time. There is a little discharge at times from the typhlotomy opening.	At the first operation the cause of obstruction was not found. It was a very small ring of growth in the splenic flexure and the intestines were enormously distended. The descending colon was also distended, probably the result of enemata.
6	M.	52	There was a mass of malignant disease surrounding the lower part of the sigmoid flexure at the pelvic brim. In one part the growth had ulcerated and in this cavity an orange-pip had lodged.	The patient had complained of pain in the body and of constipation for 12 months. Eight months before he had a violent attack of pain and vomiting and since then he had taken medicine regularly. He had lost weight.	During his stay in the infirmary before the operation the patient was examined several times, but the cause of the obstruction could not be discovered. Malignant disease of the colon was suspected. The bowels could be opened by means of purgatives and enemata.	On Dec. 17th, 1900, the abdomen was explored in the middle line and the mass of growth found in the lower part of the sigmoid flexure. About four inches of bowel were removed. The gut was severed through the lower part of the sigmoid flexure and the upper part of the rectum. End-to-end union was effected.	A good recovery.	The stitching was very difficult. On examining the specimen it looked as if another injection would have burst through the base of the ulcer and so might have produced a fatal peritonitis.
7	F.	43	Malignant growth surrounding the rectum; the lower limit could just be felt. It appeared moveable by bimanual examination.	Six months before operation the patient began to suffer from constipation. This at times alternated with diarrhœa and the passage of blood and slime. She lost weight.	There was a tumour at the upper part of the rectum with passage of slime and blood.	On Feb. 27th, 1902, the patient being in the Trendelenburg position, the abdomen was opened in the middle line and about four inches of rectum were removed. End-to-end union was effected.	A good recovery and the patient is quite well at present.	This was a very difficult operation. There was no evidence of secondary growth. The case was sent to me by Dr. D. J. Macaulay of Halifax.
8	F.	53	Constricting ring of malignant disease in the hepatic flexure.	The patient had suffered for several months from chronic constipation which culminated in an attack of acute obstruction which was complete for a week.	There were complete obstruction and vomiting of offensive fluid. The abdomen was greatly distended. There was visible peristalsis. The pulse was rapid. There was no visible tumour.	On Jan. 10th, 1901, a constricting ring of growth was found in the hepatic flexure. Typhlotomy was performed and on Feb. 24th about three inches of the colon with the growth were removed. End-to-end union was effected.	The patient never really rallied from the operation and she died on March 1st, 1901.	At the necropsy the parts were in good apposition at the line of suture. The growth was a small constricting ring. There were no secondary growths. The case was seen with Mr. J. N. Hawtin of Leeds.

TABLE SHOWING THE RESULTS OF 14 COLECTOMIES PERFORMED FOR MALIGNANT DISEASE OF THE COLON (*continued*).

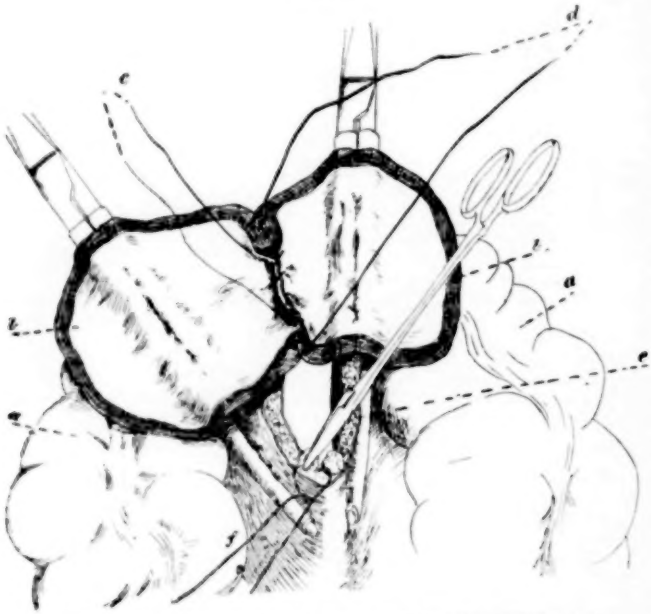
No. of case.	Sex.	Age.	Nature and position of disease.	History.	Signs and symptoms at the time of operation.	Nature and date of operation.	Result.	Remarks.
9	F.	42	Ring of malignant growth in the splenic flexure. No tumour could be felt.	The patient was apparently quite well till three months before, but had always had constipation.	The abdomen was a little distended, with well-marked peristalsis. The abdominal wall moved a little with respiration. The patient had vomited everything since August 18th and there had been no passage of either motion or flatus. The pulse was 92 and of a good quality.	On August 24th, 1902, a constricting growth was found with difficulty at the splenic flexure. Typhlotomy was performed. On Oct. 14th the growth from the splenic flexure was excised. End-to-end union was effected.	A good recovery and the patient is now apparently quite well.	The patient was a long time convalescing from the first operation so that the second was delayed more than six weeks. After this she recovered well.
10	F.	60	Malignant stricture in the transverse colon was discovered after the removal of a large adherent ovarian cyst to which all the patient's symptoms were thought to be due.	For some months the patient had been getting large in the body and suffering from pain. She had some constipation which could be relieved with purgatives.	There was an ovarian tumour extending above the umbilicus. There were a good deal of tenderness over this and some constipation. The patient was very feeble.	On April 10th, 1902, the ovarian tumour was removed and at the end of the operation the malignant mass in the transverse colon was discovered and about five inches of the colon were removed. End-to-end union was effected.	The patient never really rallied from the operation and died on the sixth day.	The patient was sent to me by Dr. J. T. Haworth of Filey. She was really too weak for two such extensive operations but I felt at the time that it was worth the risk. The bowels were well opened on the fourth and fifth days by enemata. The patient died from heart failure. A necropsy was not allowed. I was asked to see the case with Dr. J. Stewart of Leeds but had to go away two days after the operation. As I was away from Leeds Mr. Walter Thompson kindly saw the case and did the second operation. The parts had entirely separated.
11	F.	28	Malignant stricture in the descending colon, with a small circular constricting growth.	The patient had always suffered from constipation and three months before had had a well-marked attack of obstruction which lasted a week.	There were well-marked signs of intestinal obstruction. The abdomen was distended and there was visible peristalsis. No tumour could be felt anywhere.	On June 22nd, 1902, the abdomen was opened in the middle line. The intestines were distended and there was well-marked peristalsis in the colon. A narrow ring of growth was found in the middle of the colon. Three inches of colon were removed. End-to-end union was effected.	The patient appeared to go on well for three days, but became worse on the sixth day; the stitching had evidently given way. The abdomen was reopened and death occurred four hours later.	
12	M.	65	Large mass involving the cæcum and the ascending colon.	The patient was apparently quite well until two months before the operation. There was some constipation but no obstruction. The patient had got a little thinner. He was working until a few days before the operation.	There was a big mass in the cæcum and ascending colon which could easily be seen and felt, but no obstruction. The patient's general state of health was good.	On Sept. 22nd, 1902, the mass was removed. The divided ends could not be brought into apposition. Anastomosis of the ileum and sigmoid flexure was effected.	Death six days after the operation. The patient became suddenly collapsed two days after operation but improved for a time with saline infusions and strychnia.	The patient was sent to me by Dr. W. L. Hunter of Pudsey. The mass was an enormous growth which had infiltrated the mesentery quite up to its attachment to the abdominal wall. It was attached by inflammatory adhesions to the pylorus and gall-bladder.
13	F.	50	Malignant stricture in the sigmoid flexure.	For two years the patient had been suffering from constipation. Complete obstruction occurred about a week before.	There were well-marked signs of complete intestinal obstruction. The abdomen was greatly distended. There was well-marked visible peristalsis. Vomiting and rapid pulse were present. No tumour could be felt anywhere.	On June 9th, 1899, the abdomen was opened in the middle line. Constricting growth was found in the sigmoid flexure. Another incision was made in the left anterior lumbar region and a loop of bowel with the growth was withdrawn outside and fixed to the incision. The intestine was opened above and drained. A week later the loop of bowel was removed without anæsthetic.	A good recovery and the patient was up and walking about on July 17th. She was well three years after and is, I believe, still living and well.	The case was seen with Dr. G. W. Thompson of Scarborough. There was too much obstruction to think of doing a primary enterectomy. The patient has never cared to have the continuity of the bowel restored, the opening having been quite comfortable.
14	F.	64	Malignant stricture of the sigmoid flexure.	The patient had been suffering from constipation and indigestion since April, 1901, and was taking an aperient daily. Acute obstruction commenced on Sept. 30th, 1901.	The patient was extremely ill with complete obstruction. The abdomen was greatly distended. There were well-marked visible peristalsis and distension. Vomiting and rapid pulse were present.	On Oct. 5th, 1901, a similar operation was performed to that in Case 13. The second operation was performed on Oct. 26th. The patient was very collapsed after the first operation and stood the second operation badly.	A good recovery ultimately and the patient now appears to be fairly well and without any signs of secondary growth.	The case was seen with Dr. J. McCracken of Coxwold.

paper I have only done colectomy on two others. Both cases were malignant disease of the sigmoid flexure and at the time of the operation had well-marked intestinal obstruction. In the one case a Murphy's button was used and in the other case a bone bobbin; the real cause of the failure was not in the apparatus used, but was due to obstruction present at the time of the operation with fæcal toxæmia. Both patients died. Since then I have adopted the method of which I gave a short account in a paper on intestinal suture which I read before the Leeds and West Riding Medico-Chirurgical Society in October, 1900,[1] and which I now wish to describe more in detail, after which I will refer to the cases of colectomy performed by this method.

OPERATION.

The abdomen having been opened by an incision most suitable for the site of the new growth, if possible the loop of the colon involved in the growth is withdrawn and clamped a good distance above and below the growth (Fig. 1).

FIG. 1.



a, Colon and mesocolon clamped with Doyen's forceps, the blades protected with rubber tubing. *b*, Divided ends of colon. *c*, Continuous stitch for mucous membrane. *d*, Continuous stitch for sero-muscular coats. *e*, Gap in mesentery. , Ligature to unite opposing parts of cut mesenteric edge.

I know of no better clamps than Doyen's pedicle clamps, the blades of which are protected by pieces of india-rubber tubing. The bowel is now divided with a strong pair of scissors and the portion containing the growth, together with a corresponding portion of mesentery with its lymphatics, is removed; the cut ends of the bowel are protected with antiseptic gauze and the vessels in the mesentery, which have been secured with forceps, are ligatured. The divided portion is now thoroughly cleansed with some antiseptic solution. I now remove a circular portion of mucous membrane about from one-eighth to one-quarter of an inch in breadth from both divided ends in order to have a good broad surface of the other coats to bring into apposition. For suturing I prefer a small curved Hagedorn's needle, the eye part of which is no broader than the other portion of the needle; this I use on the flat. Suturing is now commenced, beginning at both cut edges at the mesenteric attachment and the sero-musoular coats are united for half the circumference by means of thin chromic or formaline gut (000). The mucous membrane is now sutured around the whole circumference with the same material, the suture being interrupted by knotting at two or three points; now the remaining half of the sero-muscular coats is united by means of the first suture interrupted by knotting at two or three points of the circumference, so as to prevent the continuous stitch from making the lumen too narrow. The clamps are now removed and the opening in the mesentery is closed; this I do by including opposite points of the gap in the same catgut ligature, three or four ligatures of this kind being generally sufficient to close the opening. This procedure prevents the possibility of perforating a mesenteric vessel which sometimes occurs when a needle and gut are used to suture the cut edges of the mesentery. If possible, the parts operated on are now surrounded with omentum and the abdomen is closed without drainage. The actual suturing can be done in from 10 to 15 minutes. For the last three or four years I have used catgut exclusively for intestinal suture and other abdominal operations—e.g., ovariotomy, hysterectomy, &c. If one cannot bring the parts into sufficiently close apposition to secure an end-to-end union then the cut ends of the bowel should be closed by suture and a lateral anastomosis made; this was done in Case 12.

If there is complete obstruction, the exact position of which cannot be ascertained, then I prefer opening the abdomen near the middle line, just making an incision long enough to admit the hand and arm, so that there is no escape of the intestines which, if it occurs, is certainly a factor militating against a successful result. With a little practice the hand soon becomes familiar with the feeling of being surrounded by distended bowels and a careful search is made in the usual sites in which malignant disease is most commonly found; beginning at the top of the rectum and working round to the cæcum the malignant growth will in this way be felt. It is best to make the search in this order, for it is in these positions that the malignant growths are less obvious than in the first part of the colon, where the growth can more usually be discovered without making an exploratory incision. Often the bowel is collapsed below the stricture; sometimes it is distended especially if enemata have been given. Having found the growth then the liver is examined to find out if any secondary deposits are present there or elsewhere in the abdomen, for if any secondary deposits are present it will be of no use to make any attempt later to remove the malignant mass. If the patient recovers from the preliminary colotomy and there are no contra-indications, as soon as it is thought that the patient will stand the second operation this is performed in the way just described. I did this in three cases, the patients in two of which (Cases 5 and 7) recovered.

There is another alternative to this plan and that is to withdraw the loop of the bowel with the growth, to fix it in the wound, and subsequently to remove it. This I did in two cases (Cases 13 and 14) in which there was complete obstruction at the time of operation, the obstruction being a small ring of growth in the sigmoid flexure in both cases. The abdomen was first opened in the middle line and the site of the obstruction being discovered another incision was made as for a left anterior lumbar colotomy; a loop of the sigmoid flexure with the growth was withdrawn through the opening and fixed in the wound. The anterior abdominal wound was now closed, the bowel was opened above the growth, and the intestinal contents were drained off by means of a Paul's tube. About a fortnight later the portion of bowel and growth were removed without an anæsthetic and both patients made a good recovery and are now living. The first patient (Case 13) was operated on in June, 1899, with Dr. G. W. Thompson of Scarborough, and the second (Case 14) in October, 1901, with Dr. J. McCracken of Coxwold.

[1] THE LANCET, June 29th, 1901, p. 1817.

Of the six successful cases of primary colectomy, with end-to-end union, there was practically no obstruction at the time of the operation; of the two fatal cases in Case 10 the malignant stricture in the transverse colon was only discovered and colectomy performed after a very adherent cyst had been removed; the patient, a woman, aged 60 years, was not in a fit condition to stand the dual operation. In Case 11 there was obstruction at the time of the operation; the obstruction appeared to have only produced distension of the colon, the muscular walls of which were apparently in good condition and actively moving. As this was the condition I hoped that I might have succeeded. In this case the better plan would have been to withdraw the loop of sigmoid flexure through an anterior lumbar opening and to treat the case as I did Cases 13 and 14. Although these cases have both permanent colotomy openings they are really very comfortable. I wish to call special attention to Case 4 as it is the earliest condition of malignant disease of the colon which I have had a chance of operating on. After a consultation with Mr. Teale we recommended the patient to submit to an exploratory operation, as we suspected he must have a malignant growth somewhere in the colon. Mr. Michael Teale has kindly made a drawing (Fig. 2) of the portion of bowel

FIG. 2.

Portion of bowel from Case 4. *a*, Growth from mesenteric border projecting into the lumen of the bowel.

removed (I have also to thank him for the other drawing illustrating this paper). It will be seen from this that the growth is of about the size of a florin; it was situated near the mesenteric border and apparently produced the obstruction by tilting on itself, so that the free portion closed the whole lumen and may even have caused a slight intussusception. In the colectomies performed after a preliminary typhlotomy two patients recovered (Cases 5 and 9) and one (Case 8) was fatal, although the patient's condition had greatly improved. At the time of the second operation I believe that a more satisfactory result might have been obtained had I waited for a few weeks longer. Case 12 was a very extensive operation for a man aged 65 years. Cases 13 and 14, considering that they were both operated on during the acute stage of obstruction, are very satisfactory and instructive cases.

If the growth is not removeable, or there are secondary growths in addition, then in some cases a lateral anastomosis can be performed; this I did in one case sent me by the late Dr. J. Muncaster of Halifax. The patient was completely relieved of the obstruction and died a few weeks later from extension of the growth. In another case, sent me by Mr. J. W. Roberts of Knayton, I did not do much good; a fæcal fistula formed and the patient died a few weeks after the operation.

In some cases of obstruction, when it is impossible to remove the growth or the presence of secondary deposits makes it inadvisable, a permanent colotomy or typhlotomy can be performed. This I have done several times. In some cases life is prolonged in comparative comfort; other patients are so ill at the time that we see them that typhlotomy is the only thing to be thought of and that sometimes without an anæsthetic. Most of these cases terminate fatally in a few days or weeks from the time of the operation, but sometimes we meet with more encouragement. In a case I operated on with Dr. J. Stewart of Batley, in June, 1901, the patient, a man aged 70 years, had intestinal obstruction due to a constricting malignant mass in the lower part of the sigmoid flexure; it was fixed and I thought it was not a suitable case for removal. An anterior lumbar colotomy was performed. The patient is now in very good health and goes down to business every day. Many surgeons can now show examples of excellent results in this field of work, amongst others the papers of Mr. F. M. Caird and Mr. A. E. Barker are valuable contributions to this difficult subject. To study one's cases helps to clear one's views. "It happily so comes to pass that the more clear views we possess, the more do we learn to respect those that are as yet still vague."

In conclusion, I wish to thank the resident surgical officers, my house surgeons, and others who have at all times so kindly helped me, both at the operations and during the after treatment of the cases.

Leeds.

ON PERITOMY FOR DIFFUSE CORNEITIS AND OTHER AFFECTIONS OF THE CORNEA.

BY SIMEON SNELL, F.R.C.S. EDIN.,

OPHTHALMIC SURGEON TO THE ROYAL INFIRMARY, SHEFFIELD; PROFESSOR OF OPHTHALMOLOGY, UNIVERSITY COLLEGE, SHEFFIELD.

PERITOMY, or syndectomy as it was sometimes called, was introduced by Dr. Furnari of Paris. He described the operation in the *Gazette Médicale*, 1862. He had, 20 years before this, operated upon some natives of Algiers and had since then repeated the operation in more than 100 cases. Furnari's operation was a much more severe one than is advocated in this article. It has been described as follows: "The patient sits during the operation and the eyelids are kept apart with a speculum. Commencing his incision near the outer canthus Dr. Furnari excised a broad ring of the ocular conjunctiva, extending from the margin of the cornea to within three millimetres (about one-eighth of an inch) of the line where the conjunctiva is reflected from the globe to the inner surface of the eyelids. Symblepharon might ensue if more was taken away. For the purpose of fixing and turning the eyeball during the operation, a flap of conjunctiva is left at the upper margin of the cornea; this is removed last. The subconjunctival tissue must be carefully dissected off so as to expose the surface of the sclera. No trace of cellular tissue or of blood-vessels should be left; any which escape the scissors are to be caught and cut with the sharp hook. The vessels upon the cornea are freely scarified and their ends, if projecting, cut off with scissors."[1] After the subsidence of the bleeding Furnari touched the exposed sclera and ulcerated portions of the cornea with caustic, the vascular only lightly and the transparent portions not at all. The nitrate of silver he applied with a brush which had just before been rubbed upon the solid stick. Furnari stated that a strong irritation but no inflammation followed the operation; the abundant local bleeding apparently acted antiphlogistically. He regarded the operation as indicated in the following conditions: "(1) In the membranous and fleshy pannus; (2) in phlebectasiæ of the conjunctiva and cornea; (3) in simple vascular keratoiditis; (4) in partial vascularities of the cornea; (5) in interlamellar infiltrations of blood or lymph; (6) in corneal lesions resulting from entropium, ectropium, and trichiasis; (7) in staphylomatous conditions of the cornea, consecutive to softening of the latter."[2]

The operation, however, was apparently used chiefly, if not entirely, for the pannus associated with granular lids. Bader in 1863 wrote an article advocating its use in which he spoke of having performed the operation several times, the only untoward results being in those instances in which he had followed Furnari's advice and cauterised the sclera. It appears, moreover, to have been used also a good deal at that time by the various surgeons attached to the Moorfields Hospital. I practised it myself in several cases in my early days for pannus associated with granular lids but never with the added cauterising. The operation, however, fell into

[1] Bader: Royal London Ophthalmic Reports, vol. iv., p. 29.
[2] Ibid.

disuse for this particular kind of pannus, and rightly so, for it merely attacked the corneal affection, which was a secondary one, and left the trachoma untouched. Very properly it has been held that by treating the eyelids by expression or other methods the pannus will clear up as improvement takes place in the trachoma. At the most, therefore, it can only be expected to be of service when associated with other means dealing more directly with the granular lids. Peritomy was revived by the late Mr. H. Bendalack Hewetson. At the annual meeting of the British Medical Association held in Leeds in 1889 he advocated its use in diffuse corneitis and then performed the operation at the Leeds Infirmary on several patients. It is particularly in this form of corneitis that I have myself employed peritomy and in which I wish now to urge its advantages. I have used it extensively during the last four years.

The only recent paper with which I am acquainted advocating peritomy is one read by Mr. T. Pridgin Teale before the Ophthalmological Society in 1901 in which he recommended its use in a variety of conditions—viz., episcleritis, iritis, herpes ophthalmicus, and purulent ophthalmia.

I will now describe my own experience in regard to the operation and the class of cases for which I have performed it. With regard to the operation a general anæsthetic may be given, and indeed it is sometimes required, but in the majority of my instances I have used cocaine. The operation is a brief one and if the cocaine is freely instilled it is usually sufficient. In addition, however, I use adrenalin, instilling it two or three times before commencing the operation. This affords the very great advantages of allowing the operation usually to be a bloodless one, or nearly so, and also the adrenalin seems to increase the anæsthetic effect of the cocaine. A speculum is then inserted and the patient desired to look downwards; a fold of the conjunctiva just beyond the cornea at the upper part is seized with forceps and is then snipped with curved scissors. From this point the conjunctiva is severed all round the cornea at a distance of from two to three millimetres. The portion left adhering to the cornea is next dissected up and removed with scissors. The division of the conjunctiva around the cornea is facilitated by using a pair of scissors having one blade somewhat longer than the other and ending in a bulbed extremity which readily runs underneath the conjunctiva. Recovery is usually quick from the operation, especially in young subjects. For a few days a rim of bare sclerotic is visible, but after the lapse of a very short time there is little indication of any operation having been performed. In a few cases I have performed a partial peritomy opposite any particular portion of the cornea which it was specially desired to affect. This will be further mentioned when I refer to the cases. I have performed peritomy in about 100 cases of diffuse corneitis and my experience has taught me that it is a remedy of particular value. Employed at the earliest stages it, in some instances, seems almost to abort the disease, whilst in others it undoubtedly very materially shortens the long period that such cases usually last. The beneficial effects are often quickly seen in those instances of corneitis which soon show the characteristic salmon-tinted vascularity, particularly at one border of the cornea. For a case in which the salmon-tint vascularity was situated at the upper part of the cornea I did a partial peritomy above. The effect was undoubtedly good, but when the other eye commenced in a similar position I performed a complete peritomy with, I believe, greater advantage. I have seen no evil results from the operation and therefore I should always advocate the complete and not a partial operation. When both eyes are affected I frequently operate on both at the same time.

The results of peritomy in cases of double keratitis have been very satisfactory even when the disease has already been going on for several weeks. I am disposed to think, also, that the cornea recovers its transparency more completely in those cases which have been peritomised than in those in which other methods have been adopted, and thus there is less likelihood of corneal opacities, or should they result they will be less dense than if peritomy had not been performed. For several instances of chronic ulcer of the cornea I have employed peritomy. In one case the benefit was very marked. A man for many years had chronic ulcers, small leashes of vessels running across the cornea to the ulcers. Sometimes he was better, sometimes worse, but the condition had continued for some years. In each eye peritomy was performed with distinct benefit and he was speedily better than he had been for several years. In ulcers, also, which show a tendency to recur peritomy has been done with advantage. A large ulcer on the cornea, to which a leash of vessels ran, was treated with some benefit with the ordinary methods, including the use of the cautery, but still it did not heal. A partial peritomy was done, the conjunctiva being severed and the corneal portion removed corresponding to about from one-third to one-half of the cornea opposite which the ulcer had been situated. The ulcer quickly healed.

Another variety of ulcer of the cornea for which I have performed peritomy with advantage is that superficial kind which occurs in people of middle age and which may spread so much as ultimately to involve the whole of the cornea. Such a case happened last year in a lady, aged about 60 years, in whom an ulcer of this nature began at one edge of the cornea and spread until a superficial ulceration involved practically the whole of it. It was attended with very severe pain and effectually resisted the ordinary applications. Any direct treatment, such as the application of the cautery, was refused by the patient. After six weeks of continuous suffering consent was at last obtained to put her under ether and to perform peritomy. This was accordingly done, and at the same time the ulcerated surface was in some places lightly touched with the cautery. Improvement was immediate and at the end of a week she talked of returning to Scotland and ultimately did so in about ten days. Another class of case in which peritomy may be used with advantage is that which is described as detachment of corneal epithelium. In such an instance which had been continuous for three months I did a peritomy recently with marked success. In my opinion we possess in peritomy a most useful means of treating diffuse corneitis and that in many other corneal affections it is a remedy of great value. In a recent instance of relapsing iritis in a young man peritomy rendered excellent service. I have used it with benefit in other cases, too, of iritis and corneo-iritis.

Sheffield.

THE THERAPEUTIC VALUE OF ALTERNATING CURRENTS APPLIED TO THE ABDOMINAL SYMPATHETIC NERVOUS SYSTEM.[1]

BY SAMUEL SLOAN, M.D. GLASG.,
CONSULTING PHYSICIAN TO THE GLASGOW MATERNITY HOSPITAL AND TO THE GLASGOW SAMARITAN HOSPITAL FOR DISEASES OF WOMEN, ETC.

IN using the term "alternating currents" I am restricting myself to the secondary faradic current and the magneto-electric or sinusoidal; the alternations of high-frequency currents being more properly described as oscillating I shall speak of the former as "alternating" and the latter as "high frequency."

In electro-therapeutics—I may add in general therapeutics—this is the age of electric currents of high potential and high frequency, so much so that currents of comparatively low potential and relatively low frequency are apt to be ignored if not despised. The latter do not appeal to the operator or to the patient as the former do, with their wonderful stage effects, their frequent startling cures, or their fascinating elements of scientific dash. After a year's experience of the high-frequency currents, whilst sanguine as to the future as well as satisfied with the present, I am coming to the conclusion that the success of former days before the advent of high-frequency was at least as real as we can get from the latter. Moreover, the former methods have, in my hands, succeeded where the latter have failed, whilst the high-frequency currents have failed in some cases when a return to the former methods has been followed by gratifying results. Possibly the greater experience of the older electro-therapeutic resources may account for this, "the best administered" being often the best.

These thoughts have led me to review my experience of work in this direction extending over seven years and to

[1] A paper read at a meeting of the British Electro Therapeutic Society on April 24th, 1903.

bring the results before the members of the British Electro-Therapeutic Society. This work has been faithfully recorded and, as far as possible, scientifically carried out. Thus only can we look for progress and thus only will our work differ from that of the honest charlatan who can often legitimately boast of his success in cases where "the faculty" had failed. He naturally ignores his failures, however, whilst we record them—our aims, let us hope, being nobler than his. Again, if I can add to the testimony in favour of the older methods I may be the means of helping to make the practice of electro-therapeutics more general, because the apparatus can more easily be in the hands of the general practitioner than the more elaborate and more expensive high-frequency installation. I believe—and I speak from a fairly extensive experience—that in the great majority of cases, within certain limits, of course, the kind of electric energy employed is of comparatively little consequence, if only the dose be carefully measured and regulated to suit the nature of the case; and this will differ greatly according to the form of electric energy employed. Thus failure in electro-therapeutics often means maladministration; and this fact should be impressed on the general practitioner who has a curious suspicion of this treatment equalled only by his readiness to recommend that it be tried when he has come to the end of his own resources, leaving his patient usually to find out for himself how to employ the new remedy.

The number of cases on which this paper is based is 67 and the ailments for which the treatment has been used have been atonic dyspepsia, visceral neuroses, neuro-muscular asthenia, asthma, lumbo-pelvic neuritis, persistent sickness with or without diarrhœa, peripheral vaso-motor disturbances (paretic or spasmodic), neurasthenia, uterine atony, and angina pectoris. Amongst the causes or accompanying conditions of these ailments have been the following: actively septic teeth, septic endometritis, influenza, chronic alcoholism, gastric catarrh, intestinal sepsis, epilepsy, obesity, inflammation of the uterus or of the uterine appendages, and anæmia.

It may be asked on what principle this treatment was carried out for so varied a list of affections. To that I can only say—and it may seem an unscientific reason—that it was because I had come to the conclusion from my extensive experience of faradisation of the brain that the electricity acted, when judiciously administered, as a stimulant and tonic to nerve tissue, improving its nutrition, and that, knowing little, if anything, of the pathology of the sympathetic system, but knowing how intimately any disorder there must influence the abdominal viscera and the general circulation, it seemed reasonable, if I could ascertain no cause for the disorder or could not for any reason remove that cause, that whatever improved the tone of the nervous mechanism must improve the patient. This improvement would be temporary if the cause persisted and more or less permanent if the cause were already in abeyance or could be previously removed; and this is exactly how matters have turned out. In practically all the cases drugs had been previously given and all the usual resources of the medical art had been exhausted, whilst during the electric treatment nothing was done, as a rule, which could render the cause of the result doubtful.

Leaving out of consideration the cases in which the treatment was applied once or twice, since no deduction could be drawn from these as to the efficacy of the treatment, as well as those in which the result was doubtful or was not known, and those of my early cases when I had no instrument for measuring the currents, there remain 57 cases. Out of this number there have been 46 cases of complete recovery, or of such a satisfactory result as an efficient holiday would give in favourable circumstances; that is, not what sometimes results from the action of drugs, which result ceases when the administration ceases, but a lasting beneficial effect after cessation of the treatment which brought about the improvement. Where the treatment has been adopted in only one or in a few cases of any particular ailment little can be said of its efficacy in other cases of the same disease or disorder. The oftener this occurs, however, the more reasonable will my contention be regarding the theory of action of this treatment, and even single instances of trial of the treatment if faithfully recorded and collated will at least help towards a correct selection of the cases and assist in bringing about an increase of successes and a decrease of failures.

My failures have been in all 11 and therefore my percentage of successes amounts to 80 when those of doubtful or unrecorded results are omitted. In some of these omissions I have stated that I have left them out because at the time of treatment I had no instrument to measure the current, such an instrument being a *sine quâ non* if the treatment is to be carried out on scientific lines. Some are too recent for me to be able to judge as to the effect of the treatment. In others, again, though the application had, in the mind of the patient, been very beneficial, yet, since only one or two applications had been employed I have left them out, lest the result might have been a mere coincidence or have followed mainly as a result of suggestion. The accompanying table will show what I mean and what I claim for this treatment:—

TABLE SHOWING THE RESULTS OF ALTERNATING CURRENTS APPLIED IN 67 CASES.

Diseases or disorders.	No. of cases.	Causes or accompanying conditions.									Results.		
		Actively septic teeth.	Septic endometritis.	Influenza.	Chronic alcoholism.	Gastric catarrh.	Intestinal sepsis.	Epilepsy.	Obesity.	Inflammation of uterus or of uterine appendages.	Anæmia.	Successes.	Uncertain.	Failures.
Atonic dyspepsia	6	—	—	1	—	1	—	—	1	1	1	3	2	1
Visceral neuroses	19	—	3	1	2	1	—	—	—	1	1	12	4	3
Neuro-muscular asthenia	17	2	4	2	—	—	—	1	1	2	—	15	1	1
Asthma	1	—	—	—	—	—	—	—	—	—	—	1	—	—
Lumbo-pelvic neuritis	7	—	—	2	—	—	—	1	1	1	—	3	2	2
Persistent sickness with or without diarrhœa	6	—	—	1	1	—	1	—	—	—	—	5	—	1
Peripheral vaso-motor disturbances—paretic or spasmodic	5	—	2	—	—	—	—	—	—	—	—	5	—	—
Neurasthenia	2	—	—	—	—	—	—	—	—	—	—	—	—	2
Uterine atony	2	—	1	—	—	—	—	—	—	—	—	1	1	—
Angina pectoris	2	—	—	—	—	—	—	—	—	—	—	1	—	1
Total	67	2	10	7	3	2	1	2	3	5	2	46	10	11

The result of the treatment at the time, especially in very chronic cases, often seemed to me and to my patient unsatisfactory. However, one or more months after and without further treatment, the *vis medicatrix naturæ* having evidently received the necessary fillip from the treatment, the patient is usually gratified by the change in health which may come gradually and as a pleasing surprise after a temporary disappointment.

These results speak for themselves. I have not strained the record so as to make it tell. Rather have I sometimes placed in the list of uncertainties cases that I might have legitimately put amongst the successes. I have endeavoured to be impartial, though you know how difficult it is to refrain from trying to make "a big show." The results are gratifying.

If there is any other treatment which in difficult and chronic cases would give better results I have yet to learn of it.

With reference to the list of diseases or disorders in the table, it must not be concluded that an affection has been defined when it is labeled. The classification, however, is, though not strictly correct, sufficient for practical definition, though some of the cases I had a difficulty in classifying. In the case of the causes or accompanying conditions these were not always simple but often complex; I have, however, endeavoured to classify them as they impressed me at the time.

The following impressions, confirmed by a study of the table, of the kind of case which benefits and the kind in which the treatment is likely to fail may be taken as fairly accurate.

1. Those cases of uncomplicated neuro-muscular asthenia where the cause had ceased or had been removed have proved most amenable to the treatment. By neuro-muscular asthenia I mean neurasthenia minus its psychic elements. 2. Regarding cases of visceral neuroses almost as much can be said. 3. Cases of persistent sickness, some of them of reflex character, have done well under the treatment, the only failure in this list having been one in which the liver was considerably enlarged. 4. The treatment may be relied upon in vaso-motor cases, all of the five cases having been successful. 5. The treatment will be of little avail in neurasthenia. I suspect its only chance here would be after the Weir-Mitchell treatment of it had failed. 6. In cases where inflammatory mischief existed in the pelvic organs the result is not likely to be good. In such cases vaginal electric applications have given the best results. 7. Where septic endometritis exists only a very temporary improvement will follow, although this may be made a permanent one if the treatment is resorted to after curettage has removed the septic condition from the uterus. 8. Epileptics are likely to derive no benefit from the treatment. I had two cases of angina with no apparent evidence of organic disease. As the table shows, recovery ensued in one, but the treatment in the other appeared to have no influence or rather seemed to make the symptoms worse. Perhaps in the successful case the success was due to the anterior electrode having been placed during part of the treatment over the cardiac region and in the case of failure I suspect the dose given was too large. This patient had a somewhat alarming collapse during one of the applications.

The title of my paper shows that these favourable results, where such has been the case, have, in my opinion, arisen from the action of the currents on the sympathetic system of the abdomen. You may, therefore, expect me to say why I think this has been so.

1. There are anatomical reasons, the electrodes, as I shall afterwards explain, being placed one behind the origins of the splanchnic nerves and the other in front of the prevertebral plexuses of nerve fibres and ganglionic cells of the abdominal sympathetic system.

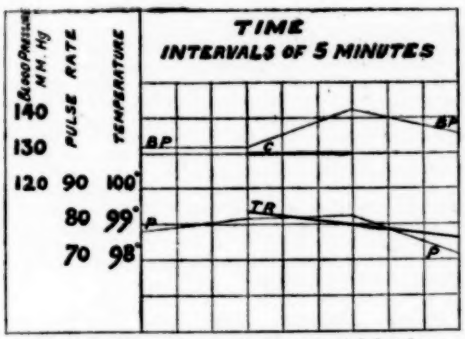
2. Whilst Professor d'Arsonval points out that no influence is made on nerves by currents having a frequency of over 5000 alternations per second, it must be otherwise with these currents we are now considering, since they have as low a frequency as about 40 per second. Here the fibres and cells of the nerve are probably influenced by something of the nature of rhythmic molecular massage or by vibrations of such frequency as they can respond to.

3. Whereas in high-frequency currents the main influence of the currents is on the skin, with these we are considering the easiest path is by the soft deeper tracks.

4. Whilst, as I have elsewhere pointed out, in faradisation of the head even therapeutic doses cause more or less psychic phenomena, showing that there is faradisation of the brain as well as of the scalp, the effect on the other hand of dorso-abdominal faradisation is to produce exactly what physiologists point out as caused by stimulation of the sympathetic system—namely, exhaustion, for after almost every application of the current there follows decided, often great, sometimes profound, exhaustion. This, however, I have noticed, is within—it must be—certain limits a favourable sign if followed by a sufficient rest, for after a proper amount of rest there follows the opposite condition of a comfortable sense of vigour and well-being, but only when the rest obtained is proportioned to the exhaustion felt. I may add here that I have never known a patient in the least degree afterwards the worse for this treatment. Query: Is this constant after-exhaustion not due to sudden absorption of toxins from the alimentary canal, caused by stimulation of absorbing power due to stimulation of the ganglia of the sympathetic system? The fact that this period of exhaustion and its amount diminish as the case favourably progresses may be due to the amount of toxins diminishing by improved nutrition of the digestive organs, for the dose of the current is generally increased later in the course of the treatment and then with generally slight fatigue only.

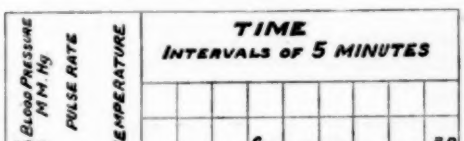
5. I have made some experiments on blood pressure, pulse, and temperatures before and after the applications, taking care to employ control tests at the same time. These show a practically constant rise of from five to 30 or more units in the blood pressure, without, as a rule, any change in the pulse-rate, but with a slight fall of the temperature in the mouth and in the rectum. If there is a fall of the pulse-rate there is less increase of the blood pressure, but still some. This shows that the rise of blood pressure is not due to an increase of cardiac rate, which is often rather considerably reduced, so I infer that it is due to a mild stimulation of the sympathetic system, causing a diminished relaxation of the arterioles of the splanchnic area. This, I take it, is also evidence in favour of the direct action of the current on the sympathetic ganglia, since a paresis of these ganglia causes, pathologists tell us, a congestion of the abdominal organs. I submit charts of two of the cases which will explain, perhaps, more clearly what results I obtained.

CHART 1.



B P, blood pressure. C, current, the amount being four milliampères. P, pulse. TR, temperature.

CHART 2.



B P, blood pressure. C, current, the amount being four milliampères. P, pulse. TR, temperature.

6. As a negative reason, I feel sure that the element of suggestion may be eliminated for the following reasons: (*a*) No rash promise is made to the patient beforehand; (*b*) the current is so weak, compared with the large size of the electrodes, that the patient often complains of getting nothing at all; (*c*) the after-exhaustion is certainly an argument against suggestion; (*d*) some of the experiments, especially two of them which were made on medical men, were on those little likely to be influenced by suggestion; and (*e*) there has been an absence of early or sudden

benefit; this having been rather slow and somewhat delayed, especially in finally successful cases.

I need not dwell much on the method of administering the currents. Two large moist clay electrodes, warmed, are applied. The one, about 9 inches by 6 inches, is placed, attached to the positive pole, between the shoulder-blades; the other, attached to the negative pole and measuring 9 inches by 10 inches, is placed over the abdomen, especially over the epigastric region. The current is from a secondary coil of about 8000 turns of fine wire and the dose is carefully measured by my faradimeter which I exhibited before the British Electro-Therapeutic Society in 1902.[2] When the sinusoidal current is used the alternations are about 1800 per minute, the voltage being much the same as that of the secondary coil. The dose at the first *séance* is from 2 to 3 milliampères. As the case progresses this is raised till a dose of 7 or at most 8 milliampères is administered. The *séance* lasts each time for 15 minutes. Should the coil have a larger number of turns on it than 8000 the current may be given in larger doses than those stated. If a smaller coil is used a smaller dose must be given. The patient, at the early sittings especially, should be made to rest for at least 15 minutes before going home and should then go to bed for an hour or longer, or recline for that time on a sofa. The applications are given every second, third, or fourth day; and the number which usually suffices is from six to eight. If a longer course seems to be required on account of the chronic nature of the complaint a gradually decreasing size of coil should be used and the former dose maintained.

The following few notes of three illustrative cases may prove interesting as a finish to my remarks.

CASE 1.—The patient was a single woman, aged about 40 years. Till a few years ago she had been a person of great mental capacity and with the normal amount of self-control. The abrupt news, however, of her mother's sudden death quite altered her nature and she gradually became a chronic alcoholic. When first attended by me two years before her principal complaints were præcordial and epigastric pains of great severity, with a "gone" feeling in those regions which made the craving for alcohol irresistible. After three applications of the sinusoidal dorso-abdominal current she volunteered the remark that she was less easily worried or fatigued and that she felt less craving for the brandy. Improvement was steady. The treatment, however, was kept up for several months, at intervals of about a week, at her own request, as she said that she was persuaded that if the treatment stopped the desire for alcohol would again become irresistible. Recently she informed me that for eight years she had had agonising pains every night for which she had always to remove her stays in the early part of the evening and that she had had no distress of this sort during the past year. The mere presence now of a lady companion suffices to enable her to maintain almost a normal amount of self-control.

CASE 2.—This case, though one probably of malignant tumour of the abdomen which has since ended fatally, was one which owed a great deal to this treatment. It was that of a male patient, aged 55 years, resident in the south of England but formerly a patient of mine in Glasgow. When he came to me in August, 1901, I was shocked at the change in his appearance though I had heard that he was considered to be dying. His weight about four years previously had been 12 stones 5 pounds; it was at his first visit to me 7 stones 13 pounds. His principal complaints were of frequent and copious vomiting with constant diarrrhœa, the motions being watery, slimy, and putrid. He had become exceedingly nervous and irritable, his natural temperament having been a placid and amiable one. The abdomen was full and tympanitic throughout, but no fluid could be detected nor was there any evidence of a tumour. As he had been frequently examined by various medical men and no evidence of organic disease had been detected I hoped that what was evidently mainly a paresis of the abdominal sympathetic system might be the primary and not the secondary condition. On this hypothesis I suggested electric treatment. He was so ill and the case seemed so hopeless that I proposed a fortnight's trial only of the treatment. Of the five medical men who had seen him no one had spoken of treatment by electricity. After six applications the improvement was so great that no question as to its beneficial influence had to be entertained. At the end of four weeks I note in the patient's own words as follows: "Decided improvement, don't feel the same at all as I was when I first came to you." I sent him now to Yorkshire for a change from city life. During that month he was only once sick and that was after eating cheese and he had gained half a stone in weight. The electric treatment was resumed and continued for two months. He then went home feeling better than for two years. Six weeks later he wrote as follows "My improvement is still maintained. I feel better than I have been for the last four years." During the following summer he gradually lost in health; fluid was detected in the abdominal cavity and the suspicion of tumour, though never confirmed, seemed to have been strong in the mind of his medical attendant. He died in October, 1902. There was no post-mortem examination.

CASE 3.—This patient was married and was about 30 years of age. She was of good constitution, though with slight glycosuria during her pregnancies. During the summer of 1901 she had an attack of influenza when in London. Severe neuro-muscular asthenia supervened and in spite of medicinal treatment by several medical men and a residence in Homburg during the autumn this condition persisted till the following April when I decided to stop all medicinal treatment, which seemed only to upset her, and to try dorso-abdominal faradisation. The first dose was 3 milliampères, the patient being quite unconscious of the presence of the current. Severe fatigue followed, lasting for 36 hours. The dose at the next visit was reduced to 2 milliampères and little fatigue followed. Gradually the quantity was increased up to 5 milliampères. No fatigue whatever followed. Three weeks from the first application the note is: "Less depressed, digestion perfect, in every way much better." She became pregnant in June following, passed through the period of pregnancy in excellent health, was confined recently, and has made a perfect and an unusually quick recovery. She informed me a few days ago that she had had no return of the nervous exhaustion.

Glasgow.

[2] THE LANCET, March 22nd, 1902, p. 830.

SUCCESSFUL REMOVAL OF MORE THAN THREE-QUARTERS OF THE STOMACH FOR CANCER, WITH GASTRO-JEJUNOSTOMY.

BY J. LYNN THOMAS, C.B., F.R.C.S. ENG.,

SURGEON TO THE CARDIFF INFIRMARY; CONSULTING SURGEON TO THE "HAMADRYAD" HOSPITAL, PORTH HOSPITAL, BRIDGEND HOSPITAL, AND CARDIFF PROVIDENT DISPENSARY.

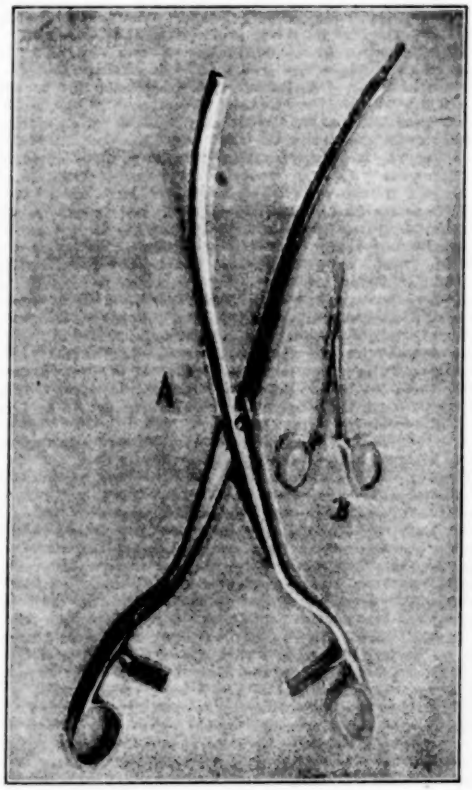
DURING the year 1902 I opened the abdomen five times for carcinoma of the stomach, prejudging from physical signs that the growth was removeable, but in only one of my cases was it possible to do anything more than the palliative treatment of short-circuiting. In four of the cases, after inspecting the local growth, it was evident that conditions existed of which one had no detectable external physical signs and which at once negatived the projected removal of the growth; these unforeseen and unfortunate conditions were: (1) secondary growths in the liver, (2) infection of the glands in the transverse mesocolon and (3) along the vertebral column. As regards the symptoms which guide one in forming an opinion as to the practicability of the performance of a pylorectomy or of a partial gastrectomy, mobility of the growth is one of the most important and, as a rule, if one cannot shift the position of the gastric growth by distension of the stomach with air, it will be found upon exploration to be inoperable. The non-observance of this fact is one of the causes of failure in the performance of the operation. Weyman's syringe is perhaps the best instrument for inflating the stomach in order to demonstrate the mobility of a gastric growth and also of showing the size and shape of the stomach itself, but an ordinary small pair of bellows fixed on to a rubber stomach-tube answers the purpose equally well, as the surgeon has the air inlet valve under perfect control and can convert it into an outlet valve when necessary in a second by pushing a finger under it. The situation of a pyloric growth is very variable; it may be situated to the left of the middle line, in the middle line above,

at or even below the umbilicus, and frequently its anatomical connexions are now recognised by practitioners on account of the want of conformity with the teachings of surgical anatomy; it is in these cases of aberrant position of a pyloric growth that distension of the stomach with air is of the greatest diagnostic value. Distension of the stomach with gas by taking separately the two powders of an effervescing drink has nothing to commend it but its novelty: one never knows the capacity of a diseased stomach before distension and consequently one can never gauge the amount of the powders necessary for its full distension. With a pair of bellows one can fill, empty, and refill the stomach at will and thus demonstrate the extent of the *lateral* mobility of the growth.

Operable or inoperable mobility can only be judged by manipulation after opening the abdominal cavity. Preoperative free mobility of the growth does not always signify operable conditions because the surgeon is quite in the dark as to the antero-posterior mobility before handling it. The case in which I removed the greater part of the stomach involved also the removal of a portion of the anterior surface of the pancreas, owing to its infiltration by the growth from the posterior wall of the stomach; this encroachment upon an important organ did not prevent the free lateral mobility of the growth by air distension of the stomach before coeliotomy, and it was not recognised until I had divided the cardiac end of the stomach and reflected also the detached portion towards the pylorus. The infiltrated connexion of the posterior wall of the stomach to the anterior surface of the pancreas was only of about the size of a shilling, but degenerative changes had taken place to such a degree as to cause perforation of the stomach even by gentle manipulation.

In all stomach operations it is absolutely necessary to be armed with reliable instruments and in my opinion the most essential is a suitable needle with an eye large enough to take silk of sufficient strength and thickness without any waste of time. Most surgical instrument makers make intestinal needles with eyes ridiculously small for practical purposes. The so-called calyx-eye as used by the blind is a valuable acquisition to intestinal needles in the saving of time. Surely the surgeon's paraphrase of the popular proverb would read, "A stitch in time saves life."

Some of the best stomach surgery performed up to now has been done without the aid of bone plates or bobbins, the surgeon trusting absolutely to his skill with needle and silk. Murphy's button is a most ingenious instrument and apparently effective in the hands of a few celebrated surgeons, but unfortunately the unrecorded cases in which the button has been removed in the post-mortem room is a quantity which is by no means negligible. The utility of bobbins and buttons will in time, I believe, be entirely superseded by reliable stitching and every means to facilitate this end will be a step in the right direction, and I desire to draw attention to two forceps which seem to me to be very useful to that end. The smaller (B) forceps in the illustration is Poirier's forceps for fixing in apposition the serous surfaces of the viscera which are to be anastomosed by suturing; two are required, one to be clamped to each end of the projected orifice of the short circuit. I had the privilege of recognising their utility through the courtesy and kindness of Professor Poirier last year. I have used them on several short-circuiting operations and some of my colleagues were so impressed with their utility that they have also ordered some from Paris. The larger forceps (A) in the illustration is the latest pattern which Professor Kocher has devised for clamping the stomach; its strength and length can be gauged from the fact that the smaller forceps (Poirier) is six inches long. It varies from Professor Kocher's previous pattern in the additional acquisition of the clip at the end of the forceps which fits on to a suitable peg at the end of the other blade; this addition is for the purpose of preventing the over-riding of the blades during the manipulations necessary for suturing the stump of the stomach after excision of the diseased portion. The pattern which is represented in Professor Kocher's "Operationslehre" (1902) is similar to the one I got in 1898 through the kindness of his chief assistant, Dr. Albert Kocher. The illustration shows the longitudinal grooves in the blades which prevent the too easy slipping of the stomach from between the blades. The evolutionary tendency with Professor Kocher is to make the blades more powerful. I cannot help referring to a modification that was lately shown to me as a so-called improvement upon Kocher's stomach forceps. The so-called improvement consists in making the blades very thin "so that no injury can be done to the stomach wall"; this modification is, in my opinion, the conversion of a useful instrument into an absolutely useless tool which will lead the inexperienced into a grievous pitfall. You cannot get the



The two pairs of forceps used

blades too strong. Even Kocher's powerful forceps after clamping the stomach for 15 minutes does not stop the circulation like a vasotribe.

I found it impossible to bring the duodenum within three inches of the stomach, so I had to close the duodenum and to complete the operation by a gastro-jejunostomy. The calibre of the remaining stomach was just a shade larger than the jejunum. I had an incident during the application of sutures on the cardiac side of Kocher's forceps which is perhaps worth recording. My needle went through the trunk of the coronary artery causing brisk hæmorrhage accompanied by a hissing gush. I grasped the bleeding points on each side of the clamp with two fingers and by circumventing the aperture the main trunk was securely occluded.

Operation was performed on April 4th, 1902. There was nothing unusual in the history of the patient to call for special mention; the tumour could be easily shifted from the left of the middle line to the right hypochondriac region and, judging by its mobility, it was considered a suitable case for pylorectomy. The anæsthetic was administered by Mr. F. W. S. Davies and I was assisted by Mr. Cornelius A. Griffiths. The method adopted for excising the stomach and suturing its closed end was that of Professor Kocher; I found it impossible to approximate the duodenum to the remaining portion of the stomach, the duodenal end was closed, and I completed the operation by a gastro-jejunostomy. The growth on the posterior portion of the stomach had invaded the anterior surface of the pancreas and a perforation of the size of a shiling took

place during manipulation and I had to remove a small piece of the pancreas in order to get beyond the growth. Although the case did not look very promising at the time of the operation as regards the prolongation of life, on May 12th, 1903, I saw Dr. J. Shaw Lyttle of Pontypridd, and he informed me that the patient was enjoying very good health and had not consulted him for some months as she was feeling so well in her general condition.

At the time of the operation I did not know of Professor Kocher's new method of mobilising the duodenum by means of division of the peritoneum immediately to the right of the descending portion of the duodenum. This year he published in the *Centralblatt für Chirurgie* a method of mobilising the duodenum and it would be worth trying it in similar cases in order to unite the duodenum directly to the stomach. I performed a similar operation to the one under observation two years ago upon a man which I reported in the *British Medical Journal*, and I was unable to approximate the duodenum to the stomach on account of the large portion of the duodenum excised. This patient is also enjoying excellent health at the present time and has not had any digestive trouble since the operation, so that whatever theoretical objection there be to closing up of the duodenum and the performance of a gastro-jejunostomy, the results in my two cases are quite satisfactory. I have once come across the existence of "the vicious circle" after an anterior inferior gastro-jejunostomy in a case where pyloric obstruction was only partial. Some digested food would in all probability pass along the normal route and then back into the stomach in such cases. Where pyloric obstruction was fairly complete I have not seen any trouble after the performance of an anterior gastro-jejunostomy and it may be that Kocher's new operation for mobilising the duodenum will be applicable to a few selected cases, as digestive disturbances due to bile flowing into the stomach are not of serious import if time be saved by closing the duodenum and completing the operation by a gastro-jejunostomy.

Cardiff.

XANTHELASMOIDEA IN AN ADULT.

BY A. CHRISTIE REID, M.A., B.SC., M.B., CH.B. ABERD.

A HOSPITAL nurse, aged 21 years, was at work on Jan. 12th, 1903, in perfect health; on the 13th my attention was called to a small blister on the dorsum of the left hand which she admitted to have pricked with a needle. When I saw it the site of the blister was covered by an ochre yellow scab. A large yellow plaque was noted on the same evening on the extensor aspect of the left forearm just above the wrist. This, she said, had developed of itself, rather suddenly, with pain and itching, red at first, then ochre yellow. On examination the area, of about the size of half a crown, was seen to be on a level with the surrounding skin; at its periphery was a slightly raised hyperæmic areola dotted with numerous vesicles containing clear fluid. Later the same evening a similar patch developed on the flexor aspect of the forearm just below the elbow. She felt slightly out of sorts and disinclined for food. The temperature was normal; there were no enlarged glands in the axilla; and the urine was normal save for excess of urates. On the 14th a raised patch with vivid red angular irregular processes extending into the surrounding normal skin was noted on the front of the left shoulder. She complained of pain "all up the arm," especially in the joints. On the 15th she was still rather poorly but there was no rise of temperature; the lowest plaque or wheal had now extended peripherally to about the size of a five shilling piece. Another was noted on the front of the right shoulder and at night one on the left mamma and one over the sternum. These plaques or wheals were of quite irregular shape, showed no tendency to disappear, and some of them showed a partial ochre colouration. That near the wrist was becoming transparent and in its centre a thrombosed vein was distinctly seen in the subcutaneous tissue. On the 19th the coagulability of the blood was determined by capillary (vaccine) tubes. (For clinical purposes this method is fairly exact if tubes of approximately the same calibre are used and other minor precautions as recommended by Professor Wright are taken.) A "firm" coagulum was obtained (such as could not be blown out) in 12 minutes, my own blood at the same time requiring 21 minutes. She was then put on ten grains of citric acid, one drachm of laurel water, and water to half an ounce, to be taken every four hours. Previously to the administration of the citric acid some new patches were noticed irregularly distributed on the left flank. A needle introduced into one of the older patches drew nothing (no mast cells could be got). The general condition was better; some joint pains were complained of. She noted a yellow wheal appear and disappear at the spot on the finger that was pricked in obtaining the blood. At 8.45 P.M. (after two doses) a firm clot was got in 13 minutes, a "control" nurse requiring 15 minutes, so that the acid had not as yet produced any change. On the 20th the general condition was good; there were no more wheals, not even where the finger was pricked. At 9 A.M. the clot was firm at 17 minutes and at 9 P.M. the clot was firm at 11 minutes. Hitherto the patient had been in bed and on light diet; now she got up but felt slightly sick. In the more recent patches the itching amounted almost to pain. On the 21st a new patch was noted on the left thigh; after this no further patches appeared. On the 22nd she felt well. There was firm coagulum in six and a half minutes (three-quarters of an hour after the last dose of citric acid); control also at six and a half minutes. On the 23rd she was allowed to engage in light work. She went home on the 24th. The patches on the arm sloughed while she was at home and several scars were very noticeable on her return to duty a month later.

This disease is rare in adults; the patient inquired and could get no history of anything like it in either herself when younger or in the family on the father's or the mother's side. She had not been eating anything out of the common; no one else in the hospital was suffering from the disease at the same time. The exhibition of citric acid may have had something to do with the arrest of the trouble but the observations on the blood coagulability can lead to no definite conclusion. The distinctly seen thrombosed vein (in the centre of two of the patches), however, points to the possibility of abnormally high coagulability and thus may afford a *rationale* for the treatment.

If further investigation should prove that in xanthelasmoidea the coagulability is high it will thus be more decisively separated from the urticarias and the name "urticaria pigmentosa" will be abandoned. A milk diet was not rigidly followed, so that the influence of the citric acid was not nullified by the calcium salts in the milk. As other treatment has proved futile I would venture to suggest that citric acid be tried. The previous history of the patient was excellent save for some slight malarial trouble from which she suffered in India as a child. The hæmoglobin index was above the normal; menstruation and other functions were normal. The original plaque being at a spot where a blister had been pricked suggested at first a septic lesion but the subsequent spreading was quite irregular and followed no lymphatic tract. The gradual peripheral spreading of one or two of the lesions gave one the impression of a stream dammed back and overflowing its banks. The yellow-ochre colour has not, so far as I am aware, been explained; if due to an accumulation of mast cells the further question may be asked, where do they come from? Altogether, the extent of our knowledge of xanthelasmoidea is so limited that I have ventured to bring forward this case in the hope that some may find it even more suggestive than I have.

Sheffield.

DEVON AND EXETER DENTAL HOSPITAL.—The twenty-third annual meeting of the subscribers to the Devon and Exeter Dental Hospital was held on May 22nd under the presidency of the mayor. The financial statement was satisfactory and the medical report stated that 2521 patients were treated during the past 12 months. The report alluded to the loss which the institution had sustained through the death of Mr. J. Bankart, the senior consulting surgeon to the hospital.

THE GERMAN MEDICAL TOUR.—The annual German medical tour will commence this year on Sept. 9th in Mayence (Rhine tour by steamer) and will end in Cassel on Sept. 20th. The following watering places will be visited:—Kreuznach, Münster a/St., Assmannshausen, Neuenahr, Ems, Nauheim, Oeynhausen, Salzuflen, Driburg, Wildungen, and Pyrmont. The journey will cost (railway and steamer fare, 60 pounds free luggage, board and lodging, wine and beer excepted), including the official report of the tour, £8 8s. Programmes can be obtained from the secretary, Dr. W. H. Gilbert, Baden-Baden.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

BRADFORD ROYAL INFIRMARY.

THREE CASES OF PERFORATED GASTRIC ULCER.

(Under the care of Dr. C. F. M. ALTHORP.)

CASE 1.—An unmarried woman, aged 23 years, was admitted to the Bradford Royal Infirmary under the care of Dr. C. F. M. Althorp on March 13th, 1902. For seven years she had had pain and vomiting after food. 32 hours before admission, whilst at work, the patient was suddenly seized with acute pain in the abdomen followed by symptoms of collapse. When she was seen at the infirmary the pulse was 102 and the temperature was normal. She complained of abdominal pain. The abdomen was distended, with rigid walls, and the liver dulness was absent. Perforated gastric ulcer was diagnosed and without delay the abdomen was opened in the middle line above the umbilicus. Gas escaped on opening the peritoneal cavity and lymph was seen on the anterior and upper walls of the stomach. Old adhesions fixed the stomach and great difficulty was experienced in obtaining a view of the perforation, which was of about the size of a threepenny piece and was situated in the centre of a large ulcer near the cardiac end of the stomach. A large collection of escaped contents of the stomach had already formed a perigastric abscess. Owing to the position of the perforation and because the stomach was fixed by adhesions it appeared impossible to close the opening by stitches. Several silk sutures were introduced, but they tore out on an attempt being made to tie them. It was therefore decided to trust to gauze packing, especially since the general peritoneal cavity was cut off by recent adhesions. The infected area was mopped dry and gauze was packed around the perforation. The patient stood the operation well and appeared to progress nicely for ten days. The gauze packing was removed on the third day, the cavity was mopped dry, and fresh gauze was introduced daily. The discharge was extremely offensive. Rectal feeding was employed for nine days, then small quantities of peptonised milk were given by the mouth. On the tenth day the patient began to cough and she expectorated a small quantity of offensive pus. There were found to be signs of consolidation at the base of the left lung. An exploring needle introduced into the dull area withdrew a little pus. An anæsthetic was given and the left pleural cavity was explored. There was no pus in the pleura or collection below the diaphragm. The lung was solid. The patient died on the following day from pneumonia.

Necropsy.—The post-mortem examination revealed hour-glass contraction of the stomach caused by a large ulcer in the centre of which was the perforation. Opposite to the ulcer there was an opening in the diaphragm and here the base of the lung was adherent. There were no empyema and no subdiaphragmatic abscess. The lower lobe of the left lung was solid and near the base was a small septic abscess.

CASE 2.—On Jan. 23rd, 1903, a man, aged 23 years, whilst at work was suddenly attacked with severe abdominal pain followed by symptoms of collapse. Two months previously he had vomited a pint of blood and had since been under treatment for gastric symptoms. Eight hours after perforation he was seen at the Bradford Royal Infirmary. Being under the influence of morphia he had no pain; his pulse was 84 and the temperature was normal. Ether was given and on opening the abdomen gas escaped and contents of the stomach were seen spread over the anterior surface of the stomach. A large perforation was seen on the lesser curvature of the stomach near its cardiac end deep down under the arch of the diaphragm. Adhesions were forming between the stomach and liver and a line of lymph cut off the area of perforation in a downward direction. The perforation was the centre of a large ulcer which had by its contraction given rise to a condition of hour-glass stomach and had fixed the organ posteriorly by adhesions. The stomach could not be withdrawn into the abdominal wound. The stitching therefore had to be done within the abdomen. The stomach tissue around the perforation was extremely rotten and the stitches tore out. A Halstead suture of thick silk passed wide of the perforation drew the edges of the opening together. The area of the perforation and of the ulcer was further closed in by bringing together a fold of healthy stomach wall from each side by means of a row of interrupted silk sutures. A fold of omentum was stitched over the line of union. The peritoneal cavity was washed out with hot saline fluid and the abdominal wound was closed without a drain. The after progress was very satisfactory, except that at the end of the first week an abscess formed in the left flank and required incision and drainage. This appeared to indicate that the left kidney pouch had not been efficiently washed out at the time of operation. Two months after the operation the patient was quite well and was taking ordinary light diet without discomfort.

CASE 3.—An unmarried woman, aged 27 years, was admitted into the Bradford Royal Infirmary on March 14th, 1902, with signs of a perforated gastric ulcer. For five years she had had symptoms of indigestion. The present attack came on in the street soon after a meal—there being severe pain in the abdomen and vomiting. When seen at the infirmary eight hours after the perforation there were abdominal pain and rigidity. The pulse was 112 and the temperature was normal. The abdomen was opened in the middle line and gas and contents of the stomach were at once noted. The extravasated fluid was mopped up both to the right and to the left, but no perforation was found on the anterior surface, the lesser curvature, or the cardiac end of the stomach. The transverse colon was drawn upwards, an opening was made in the transverse mesocolon, and the stomach was drawn out of the lesser sac on the surface of the abdomen. Very little fluid was present in the lesser sac. About the middle of the posterior surface of the stomach was an ulcer of the size of a sixpence and in the centre of this was a small rounded perforation. The opening was closed by two layers of silk sutures. The stomach was returned to the lesser sac and the opening in the transverse mesocolon was closed with a continuous catgut stitch. The pelvis and right kidney pouch were full of turbid contents of the stomach which were removed partly by mopping with sponges and also by flushing out with hot saline solution. A glass drainage-tube was introduced into the pelvis through a suprapubic opening and the right kidney pouch was drained by means of a split rubber tube with a gauze wick inside. The abdominal wound was closed by silkworm-gut sutures passing through all the layers. The patient was very collapsed at the end of the operation and required hypodermic injections of strychnine and saline fluid by the rectum. On the fourth day the drainage-tubes were removed and at the end of a fortnight the patient was taking a fluid diet by the mouth. Some symptoms of lung complication appeared in the third week but they fortunately cleared up and she made a slow convalescence.

Remarks by Dr. ALTHORP.—In Cases 1 and 2 the perforations were in hour-glass stomachs caused by large ulcers near the cardiac end. In Case 1 it was found to be impossible to suture the opening, gauze packing being used; in Case 2 the perforation was closed with great difficulty and no drainage was employed. In both of these cases the stomach was fixed posteriorly and could not be drawn into the abdominal wound. The perforation in Case 3 was in the posterior wall of the stomach, access being obtained through an opening in the transverse mesocolon.

Perforation of the posterior wall of the stomach is rare (9 per cent., Robson) and perhaps an easier way of getting access to the lesser sac in Case 3 would have been by tearing through the great omentum below the greater curvature of the stomach. The extravasated fluid had in this case passed out of the foramen of Winslow into the right kidney pouch and down into the pelvis and, in fact, had spread all over the peritoneal cavity. There was in consequence a good deal of shock. The presence of hour-glass contraction of the stomach in Cases 1 and 2 made the operation very difficult on account of the stomach being fixed and the out-of the way position of the perforations. Drainage was employed in Cases 1 and 3. In Case 1, although the length of time between perforation and operation (32 hours) made the prognosis almost hopeless, the gauze drainage

acted very well. In Case 3 operation was performed eight hours after perforation, yet there was great collapse on account of the extravasation of a large quantity of contents of the stomach all over the peritoneal cavity. The question of performing a gastro-enterostomy in a case of perforated gastric ulcer occurring in a condition of hour-glass stomach is one that depends on the condition of the patient at the time of operation. In Case 2 the cardiac compartment was very small and the stomach was so fixed behind that great difficulty would have been experienced in performing an anastomosis even had other circumstances been favourable.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

An Inquiry into the Phenomena attending Death from Drowning and the Means of Promoting Resuscitation in the Apparently Drowned.

A MEETING of this society was held on May 26th, Mr. ALFRED WILLETT, the President, being in the chair.

The PRESIDENT said that the committee for the investigation of the phenomena attending death from drowning had been appointed by the society in 1892. During the earlier part of the last century the method introduced by Dr. Marshall Hall for resuscitating the apparently drowned was that which was universally adopted, but towards the end of the "fifties" Dr. Silvester's method was advocated and it was thought to be more efficacious. A committee was formed for the investigation of the subject and reported in favour of Dr. Silvester's method in 1862. The method had since then been almost universally adopted, but there were those who had criticised, and still differed from, the results of the committee and it was therefore in 1892 that the society formed a fresh scientific committee further to investigate the subject and members would hear that night from Professor Schäfer the report of that committee.

Professor E. A. SCHÄFER said that in considering the manner in which the question which was placed before the committee might best be solved it became clear that it would be necessary for the inquiry to be pursued along two different lines—the one having for its object the determination of the most efficient and most convenient mode or modes of carrying on artificial respiration in the human subject, and the other, the investigation of the physiological phenomena which attended asphyxia produced by the introduction of water in place of air into the lungs, as well as the phenomena which accompanied recovery in apparent death by drowning. This branch of the inquiry could, of course, only be conducted upon animals; and for various reasons dogs were by far the most suitable subjects upon which to carry out such an investigation. As was the case, therefore, with the report submitted by a previous committee of the society and published in the Transactions for 1862, the report consisted, so far as the experiments recorded were concerned, of two parts—one dealing with physiological experiments upon dogs and the other of experiments designed to measure the amount of air which could be taken into or forced out of the lungs in man by various methods of artificial respiration. Experiments to determine the amount of air which could be taken into or forced out from the lungs by various methods of artificial respiration were carried out by experiments of a similar character to those which were instituted by the 1862 committee, which made a number of observations upon the dead body with this object. But the method generally employed—that, namely, of tying a tube into the trachea, this tube being connected with a balanced bell-jar—was open to the obvious objection that no such operative procedure as this could well be used in cases of apparent drowning. In such cases, moreover, there were factors connected with the upper air passages which might influence the result; such, for example, as accumulation of mucus in the throat and glottis or the falling back of the tongue which might thereby block the pharynx and which also had been supposed to cause the epiglottis to fold over the superior aperture of the larynx. On these grounds it seemed to the committee of importance to determine, if possible, the question of the amount of air passed into and out of the lungs (under different methods and conditions of artificial respiration) with preservation of the natural channels through the nostrils and mouth. In order to effect this result the committee employed a face-piece or mask, with tubular rubber margin which could be fitted so as to be air-tight, with the aid of vaseline, over the mouth and nostrils, and this mask was connected either to a spirometer or to a balanced bell-jar similar to that used by the 1862 committee, with its mouth dipping under water, and so arranged that it would move up or down according as it contained more or less air. The difficulty of experimenting upon the dead body was, however, so great that it occurred to the committee that it might be feasible to carry out the inquiry upon the living subject, the conditions necessary being that the subject should remain completely passive without making any attempt at natural respiration for the short period of time during which the experiment might last, and that he should not, by involuntary closure of the glottis, prevent the free passage of air into, or out of, the lungs. The first of these conditions could be readily fulfilled if the subject, immediately prior to the experiment, made several deep respirations, for he thereby rendered himself temporarily apnœic and the *besoin de respirer* was absent. In these circumstances it was by no means difficult to perform artificial respiration for a short time without any resistance on the part of the subject and without his making any spontaneous movements of respiration. The second condition necessary for success—the maintaining an open glottis—was at first more difficult. The results of these experiments showed that by nearly every method used a greater volume than the normal tidal air entered the lungs. The methods which might be employed in artificial respiration in man were of three kinds—viz.: (1) those in which air was drawn into the lungs by increasing the capacity of the thorax (which could only be done artificially by raising the ribs); (2) those by which air was forced out of the thorax by direct compression of its walls or indirectly by compression of the abdomen; and (3) those by which air was driven by means of a pump or bellows through the air passages into the lungs. It was obvious that both kinds of methods enumerated under (1) and (2) might be combined—e.g., the ribs might be raised by exerting traction through the arms, and when these were brought back to the side of the chest pressure could be exerted upon the chest walls; this was, in fact, the method which was generally employed and was that recommended by Dr. Silvester. There was one serious danger to which the pressure methods were liable—viz., that of causing injury to the internal organs. The greatest danger was to the liver, which in all cases of drowning, and of asphyxia in general, was enormously congested and enlarged. In these circumstances a very little excess of pressure—especially if it were applied to the lower part of the chest or the abdomen—was sufficient to produce rupture of the liver with concomitant extravasation of blood into the peritoneal cavity. Some of the experiments upon dogs illustrated the reality of this danger, and it was not an unknown experience that in cases of death from an overdose of chloroform in the human subject, in which various methods of artificial respiration—and these often included forcible compression of the lower part of the thorax or of the abdomen—had been resorted to in attempts at resuscitation, it had been found post mortem that the peritoneal cavity contained a large effusion of blood, resulting from rupture of the liver. The methods of artificial respiration which had been tested were: (1) simple traction (and relaxation) by both arms, the subject being in the supine position; (2) traction by both arms with alternating pressure upon the thorax, supine position; (3) intermittent pressure on the thorax, supine position; (4) simple traction (and relaxation) of both arms, the subject being in the prone position; (5) traction by both arms with alternating pressure upon the back of the thorax, prone position: (6) intermittent pressure on the back of the thorax, prone position; (7) traction by one arm only, the subject lying upon the opposite side with the opposite arm underneath, lateral position; (8) traction by one arm with alternating pressure upon the thorax, lateral position; (9) intermittent pressure on the thorax, lateral position; and (10) rolling the subject alternately from the lateral or latero-supine to the prone position with alternating pressure upon the back of the thorax. All the methods employed were competent to effect a sufficient exchange of air to maintain the oxygenation of the blood. Very few of the methods gave results less than the volume of the tidal air of the individual. The least amounts were those yielded by the traction method pure and simple,

but the combination of this with alternating pressure gave results which were in some instances much larger than, and in the others very nearly, if not quite, as large as, the amount of tidal air. The marked effect of pressure in assisting the output and subsequent elastic intake of air was particularly well seen in the case of the younger subjects, and this was doubtless due to the greater mobility in them of the thoracic walls. It further appeared that the prone position was advantageous in assisting the effects of pressure, probably because pressure applied to the back became more evenly distributed over the thorax and abdomen. It appeared to the committee that both this method and the even more simple method of rhythmic pressure upon the back with the subject placed in the prone position, should occupy a prominent place in all recommendations made with the view of the resuscitation of the apparently drowned. One of the most striking results shown in the series of experiments on dogs drowned in fresh water was that of the complete disappearance of the water which was taken into the lungs, even in cases in which artificial respiration was not followed by recovery. The actual amounts which were absorbed had been found to be very variable (from 75 to 690 cubic centimetres). This no doubt depended somewhat upon the size of the dog used, but it probably depended more upon the character of the respirations, especially those at the beginning of the immersion. Another striking fact which came out in these experiments was the great length of time during which immersion might last and yet be followed, with efficient artificial respiration, by complete recovery. Several of the experiments illustrated this point. In one case the immersion lasted nearly eight minutes without a fatal result. In other instances a much shorter immersion was followed by death in spite of artificial respiration, and even in two instances in spite of the fact that the natural respirations were recovered. The reason for the failure of recovery—when it was not due, as seemed to be the case in certain instances, to early complete failure of the heart—appeared to have been due to deficient aeration of the blood by the respiratory movements. The results with sea-water were, on the whole, similar in character to those with fresh water, but there were certain points of difference. So far as these experiments went it would seem that there was, as a rule, less absorption of water by the lungs. This was, of course, to be expected, seeing that the osmotic force of sea-water was higher than that of the blood. Indeed, in one experiment this showed itself by the fact that a larger amount of fluid was returned from the air passages than had been taken in and the excess must have come either from the blood or from other fluids of the animal body. Since one of the most marked physiological symptoms of death by asphyxia from drowning—as in other forms of asphyxia—was the extreme lowering of blood pressure owing to paralysis of the vaso-motor system, it was hoped that such a drug as suprarenal extract might, by antagonising this symptom, produce, in association with artificial respiration, rapid recovery; the more so because this drug was known also to increase the force and rate of the heart's action. But it was obvious that it would only act if there were some sort of circulation going on to promote its absorption and to carry it to the peripheral vessels; and even then it could only produce permanent benefit if the artificial respirations were efficiently promoting the aeration of the blood, since as long as the venous condition of the blood continued the paralysis of the vessels and heart could not be more than quite temporarily relieved. This was, in fact, what was found to occur, for in cases in which, owing to froth in the bronchi, the diffusion of the oxygen of the inspired air into the alveoli was interfered with, or in which, from any other cause, the artificial respiration was inefficient, the result of intrapulmonary or intracardiac injection of adrenalin had only a quite temporary effect—the blood pressure rising and the pulse improving for a short time—to give place again to paralysis of vessels and heart and at the best only deferring the fatal result for a brief period.

Dr. H. R. SILVESTER said that he should confine his remarks to discussing the most convenient and efficient mode of carrying out artificial respiration. He regretted that the committee of inquiry had not used the same method for estimating the amount of air that could be introduced into the lungs as the committee of 1862, for he considered that no satisfactory results could be obtained by estimating the amount of air passing through the upper air passages, for some portion of the air would tend to find its way into the stomach and thus prevent any accurate comparison. Another serious objection to the face mask method was that air from the stomach was liable to pass into the spirometer. He thought that the rolling method had the additional disadvantage that the contents of the stomach were liable to get discharged into the pharynx and so into the air passages. Dr. Silvester pointed out the importance while using traction to have the body on an inclined plane and even in some cases to tie the feet. He considered that the conclusions of the present committee were based on insufficient evidence.

Dr. R. L. BOWLES said that the report of the present committee confirmed the report of the committee of 1862, which showed that sufficient air for the maintenance of life could be introduced by alternate compression and relaxation of the chest wall and by means of movements of the arms. The present committee had experienced the same difficulty in estimating the amount of air capable of being taken in and driven out of the thorax by artificial respiration in carrying out the experiments on the dead body as the committee of 1862, but by well working the muscles the rigor mortis of the body might be overcome and the chest could be rendered more or less elastic before beginning the experiment. He considered that the falling back of the tongue and the collection of mucus in the pharynx were the greatest hindrances to artificial respiration and that while the body was in the supine position these difficulties could not easily be overcome, whereas if the body were in the prone position neither of these difficulties could occur. He thought that it was important that the simplest and most efficient method of resuscitation of the apparently drowned should be given to the public and therefore he strongly urged that the prone and not the supine position should be used. He doubted if experiments on dogs were of much value, for the conditions present in the dog with regard to habits and position differed so entirely from those of man that the conditions could hardly be made comparable. The condition of the lungs found in the dogs drowned experimentally did not correspond with that which was found in man drowned, for in the latter case a considerable amount of water was usually found in the lungs. He thought that the danger of rupture of the liver was a real one and was another reason for not employing pressure during artificial respiration. In conclusion he said that both the Marshall Hall and Silvester methods had been shown to be capable of introducing air into the lungs, but that the public should be taught to use only one and that the Marshall Hall method.

Lieutenant-Colonel C. R. WOODS said that the first thing to do in resuscitating the apparently drowned was to get rid of the water from the lungs and this was most effectively done by turning the patient into the prone position. He thought that with a heavy body the rolling method had some advantage but that the Silvester method could be more readily carried out. He thought that too little pressure was often employed in expelling the air from the chest.

Dr. F. W. HEWITT called attention to the fact that there was often a considerable amount of muscular spasm of the upper air passages during the administration of an anæsthetic which might produce asphyxia and this was not removed even when the trachea was opened. He thought that the method of inflation of the lungs was of great service and that the method might be elaborated.

Dr. M. S. PEMBREY said that it did not seem to him that the absolute quantity of air made to enter the chest during artificial respiration was of much importance, for a few extra respirations made up for any deficiency in the actual amount at each inflation. The influence of the nervous system was a matter of great importance in man. The amount of water which the lungs would rapidly absorb was very considerable. Dr. Pembrey suggested that the method of absorption might be traced by colouring the water with carmine.

Professor SCHÄFER replied.

CLINICAL SOCIETY OF LONDON.

Ileo-cæcal Invagination by a Meckel's Diverticulum.—Sequel to a Case previously shown as one of Congenital Morbus Cordis.—A Case of Great Dilatation of the Heart.—Election of Officers.

A MEETING of this society was held on May 22nd, Mr. HOWARD MARSH, the President, being in the chair.

Dr. J. P. ZUM BUSCH read a paper on a case of Ileo-cæcal Invagination by a Meckel's Diverticulum. The patient was a man, aged 21 years, an acrobat by occupation. He had

suffered for several years from abdominal symptoms pointing to an intestinal growth. The condition became suddenly worse after a heavy strain during muscular exertion. Sickness and vomiting, the passage of blood by the anus, and the appearance of a quickly growing swelling in the ileo-cæcal region led to the diagnosis of invagination produced by intestinal polypus and necessitated an immediate operation. The abdomen having been opened, an ileo-cæcal invagination was found and with great difficulty reduced. This invagination was, however, only secondary to a primary invagination of a Meckel's diverticulum into the ileum. Extensive gangrene of the intestine rendered the excision of the whole invaginated portion (about three feet) necessary. Side-to-side anastomosis was performed and an uneventful recovery ensued. The condition described was a very rare one, as only 15 cases of invagination of a Meckel's diverticulum had been published; in 12 of these a secondary invagination of ileum into ileum or ileum into cæcum occurred. The prognosis of this condition seemed to be exceedingly bad, as in only one case had the patient recovered after excision of the gangrenous intestine. In that case, which was published by Brunner, it was not absolutely certain whether the inverted part was really a Meckel's diverticulum or whether it was an invagination produced by an accessory pancreas.—Mr. W. G. SPENCER referred to the small lipomata found in the pancreas which, he remarked, frequently formed the starting-point of cæcal invaginations.—Mr. E. M. CORNER described the two ways in which Meckel's diverticulum became invaginated. In some cases the invagination might start at the apex of the diverticulum and these mostly ran a chronic course. But in other cases the diverticulum became invaginated and the small intestine contracted upon it; the symptoms in these circumstances became acute.—Dr. ZUM BUSCH replied.

Dr. PERCY KIDD narrated the sequel to a case previously exhibited before the society as one of Congenital Cardiac Disease. The patient was a girl, aged 23 years, who was shown before the society in February, 1901.[1] The case was regarded by nearly all those who saw it at that time as one of congenital morbus cordis. There were marked dilatation and hypertrophy of the right side of the heart and a loud second sound more marked over the pulmonary area. The patient died six months later and very extensive endarteritis was found to involve the pulmonary artery and its branches, though the pulmonary valves themselves were healthy. The lungs were engorged and the right side of the heart was much enlarged in consequence of the disease of the pulmonary artery. The history suggested that the arterial disease originated during intra uterine life.—Dr. P. HORTON-SMITH had made the macroscopic and microscopic examination of this case. There was extensive and advanced chronic endarteritis in the pulmonary artery and its branches but limited to the pulmonary system of vessels. There was no emphysema of the lungs. The cause was very obscure; there was no history of gout, lead, or alcohol.—Dr. H. BATTY SHAW remarked on the occurrence of a diastolic murmur on the right side of the sternum in this case. Such murmurs occurred in association with mitral disease, but it was probably generally due to leakage of the pulmonary valves. Dr. Kidd's case helped to substantiate this view.—Mr. SPENCER discussed the occlusion of the duct of Botalli and the hypogastric arteries in relation to lesions of the kind under discussion.—Dr. F. PARKES WEBER, referring to the diastolic murmur, asked whether there was any relative dilatation of the right auricle, because relative tricuspid stenosis might produce a diastolic murmur.—Sir HUGH R. BEEVOR referred to a case in which both pericarditis and aortic disease were suspected but dilatation of the right heart alone was found after death.—Dr. W. EWART regarded diastolic murmurs such as that in this case as of mitral regurgitant origin and not arising in the pulmonary valve. He could hardly believe that the lesion, which was evidently a progressive one, in Dr. Kidd's case was of congenital origin though its cause was evidently very obscure.—Dr. KIDD, in replying, thought that the lesion must have arisen in intra-uterine life and it was undoubtedly progressive in its nature.

Dr. J. PORTER PARKINSON related the further history of a case of unusually Great Dilatation of the Heart. The patient had been shown to the society in January, 1901,[2] when the physical signs showed the heart to extend almost completely across the chest. There was a systolic and presystolic murmur both at the apex and in the region of the right nipple. There were remarkably few symptoms, dropsy only appearing during the last few weeks of life. He died in December, 1902. At the necropsy the heart was seen to be immensely enlarged and the pericardium was universally adherent. All the chambers were enlarged but especially the auricles and the right ventricle. The mitral orifice was exceedingly stenosed; the tricuspid valve was thickened and the orifice was somewhat stenosed. The heart weighed 30 ounces when empty of blood. The specimen was shown with the object of demonstrating that the systolic pulsation in the region of the right nipple was produced by the right auricle and not by the left auricle which, though much enlarged, lay at a distance from the surface.—Dr. EWART remarked on the interest of the case as bearing on the causation of pulsation over the right auricular area.—Dr. C. W. CHAPMAN referred to a somewhat similar case in which practically no symptoms existed.—Dr. PARKINSON, in replying to Dr. W. PASTEUR, stated that the pulsation over the auricular area was synchronous with the apex beat.

The annual meeting of the society was then held. The report of the council and the treasurer's statement of accounts were duly submitted and the usual votes of thanks to the retiring officers and council were proposed and adopted with acclamation. The scrutineers' report showed that the following gentlemen had been elected for the session 1903–04:—President: Dr. Frederick Taylor. Vice-presidents: Dr. D. B. Lees, Dr. H. A. Lediard, Sir William R. Gowers, Mr. H. H. Clutton, Mr. Henry Morris, and Mr. C. H. Golding-Bird. Treasurer: Mr. G. H. Makins. Council: Mr. J. Kingston Barton, Dr. F. E. Batten, Dr. J. Mitchell Bruce, Dr. J. Walter Carr, Dr. W. S. Colman, Dr. Lee Dickinson, Dr. S. H. Habershon, Dr. F. H. Hawkins, Dr. Kidd, Dr. Hector Mackenzie, Mr. F. W. Strugnell, Mr. Herbert W. Allingham, Mr. Leonard A. Bidwell, Mr. Walter Edmunds, Mr. J. Hutchinson, Jun., Mr. T. H. Kellock, Mr. H. Betham Robinson, Mr. Charters J. Symonds, Dr. C. S. Wallace, and Mr. F. C. Wallis. Honorary secretaries: Mr. Anthony A. Bowlby and Dr. W. Pasteur.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—A meeting of this society was held on May 15th, Dr. Frederick Taylor being in the chair.—Dr. J. Porter Parkinson showed a specimen of Colloid Cancer of the Peritoneum removed from a girl, aged 12 years. During life the abdomen was distended with free fluid and she was thought to be suffering from tuberculous peritonitis. On removal of the fluid large cells filled with colloid deposit were found in the detritus. An irregular hard swelling was then palpable in the hepatic area and some scattered nodules could be felt elsewhere. An abdominal section was subsequently made and the peritoneum was found to be sown with small masses of growth of a sodden semi-transparent appearance which microscopically were colloid cancer. Subsequently the abdomen became completely filled with irregular masses of growth which surrounded all the contained organs. The primary seat of the growth was thought to have been in the rectum.—Dr. A. E. Sansom thought that by reason of the patient's early age the case was probably a record one.—Dr. A. A. H. Partridge showed a boy, aged ten and a half years, the subject of Interstitial Keratitis who simultaneously developed an affection of the hands. He said that the cause to which the joint changes were due was an interesting question. The joints looked like those of osteo-arthritis but he supposed that they must be considered due to the general condition. An interesting point about the case was that the left hand became affected after the left eye and the right later—this happened in November, 1901; the right eye failed in January, 1903.—Dr. Edmund Cautley said that the disease did not seem to him to be a syphilitic affection of the joints; he was much more inclined to consider it a case of osteo-arthritis arising in a child the subject of inherited syphilis.—Dr. G. A. Sutherland said that he thought that the joint changes were probably syphilitic in origin.—Dr. George Carpenter agreed as to the striking resemblance between the child's condition and osteo-arthritis. He thought that there was periosteal thickening of the heads of the metacarpal bones and that the condition of the knuckles could not be distinguished from syphilitic epiphysitis.—Dr. F. Parkes Weber said that he had examined the case very

[1] THE LANCET, March 2nd, 1901, p. 606.
[2] THE LANCET, Feb. 2nd, 1901, p. 325.

carefully and the evidence was very strong in favour of the state of the joints being due to congenital syphilis. Unlike osteo-arthritis there was a complete absence of tenderness and the movement in the joints was almost perfect. The changes were almost entirely confined to the bones and the periosteum. Certainly there was just the slightest effusion into one or two of the joints. He regarded the case as one of phalangitis of syphilitic origin.—Dr. Cautley showed the Stomach and Œsophagus of an infant, aged 18 months, who had died from Diphtheria. The child was admitted into hospital for constipation and anuria and ten days later developed bacilluria, the variety being the bacillus coli. Subsequently the patient became feverish, profoundly asthenic, and died in 12 days from the onset of the fever. The œsophagus contained membrane in the upper third. One third of the mucous membrane of the stomach towards the pyloric end was covered with yellowish-grey membrane. —Dr. Watson said that he had obtained a pure culture of the Klebs-Löffler bacillus from the mucous membrane of the stomach and also in sections of the stomach wall.—Dr. Parkinson showed a case of Enlarged Bronchial Glands in a child, aged four and a half years, which was associated with a paroxysmal cough like whooping-cough. The associated signs were those of bronchitis with breath sounds weaker on the right side and in places somewhat bronchial in quality. There was much sputum which was free from tubercle bacilli. The fingers and toes were clubbed. He thought that there were enlarged mediastinal glands pressing on the right bronchus with secondary dilatation of the tubes and that the "whoop" was occasioned by irritation of the vagus nerve. The very continuous whoop was so distinct that the child was not allowed by the mother's friends to associate with their children and had been sent out of hospital on several occasions as a case of whooping cough.—Dr. Taylor showed a case of Athetosis in a girl suffering from mitral disease. She was suddenly attacked with right-sided hemiplegia during sleep and some twitchings of the right arm and leg were noticed at the onset. Involuntary movements commenced in the right hand and foot two days after the hemiplegia began. The condition was probably embolic and permanent.—Dr. Sansom said that there was no question as to the embolic plugging of the left middle cerebral artery. Plugging in a purely rheumatic case of heart disease was not quite so common as was sometimes thought.—Dr. Sutherland said that the case seemed to be one of chorea from the nature of the movements. The movements were very rapid for athetosis and there was also the fact of the rapidity of their onset, and there was the association of endocarditis which was a strong point in favour of chorea and he did not think that the absence of facial movements absolutely excluded chorea.—Dr. Taylor also showed a case of Acute Anterior Poliomyelitis involving the abdominal muscles as well as the legs and lumbar muscles. He said that the more he saw of cases of infantile paralysis the more he found that the abdominal muscles were involved and he thought that the lesions were as much primary there as in the limbs.—Dr. E. C. Williams (Bristol) read a paper on a case of Infantilism in a child, aged ten years, who had not grown since four years old. Her weight was 26 pounds and her height was three feet. She was awkward to manage and rather dirty in her habits. She could read her letters and count and answer simple questions fairly intelligently. There was no heart disease; she was free from congenital syphilis and rickets and she lost weight under thyroid treatment.—Dr. Carpenter drew attention to the association of infantilism in congenital syphilis with atrophied testicles. He suggested that Dr. Williams should make a rectal and bimanual exploration of the pelvic viscera and report upon the condition of the uterus and the Fallopian tubes and ovaries, as it would make the case more complete if that were done.—Dr. John McCaw (Belfast) read a paper on a case of Splenic Leukæmia in a child, aged 18 months. There was no history of syphilis and the patient was not rickety. The accessible lymphatic glands were enlarged. The spleen reached to the umbilicus and the liver also. The urine was loaded with oxalates and contained a trace of albumin. There was intense leucocytosis; the lymphocytes reached 99·2 per cent. of the leucocyte count. The red corpuscles were diminished by more than half and a few nucleated corpuscles were seen. The hæmoglobin was 39 per cent. She subsequently developed purpura and died soon afterwards. The spleen diminished in size very considerably before death and was not nearly so hard as it was previously to the touch. The swelling of the lymphatic glands disappeared to a large extent and they were not so hard.

ILFORD MEDICAL SOCIETY.—A meeting of this society was held on May 7th.—Mr. C. W. Mansell Moullin read a paper on the Treatment of Fractures into Joints and Sprains at the present day compared with that which was in vogue a few years ago. Formerly a Pott's fracture was put up in splints or in plaster-of-Paris for four or five weeks without being moved or touched in any way and as a result when the limb was taken down and the patient was assured that the fracture had united the limb was quite useless. It was cold, heavy, and stiff, all the muscles were wasted, the tendons were glued down to their sheaths, the joint could not be moved, and if the limb were used at all or allowed to hang down it became swollen and painful at once. It often took longer for the patient to recover from the effects of the treatment than it did for the fractured bones to unite. In Colles's fracture the results were even worse. Not only the wrist but the fingers were left stiff and painful so that the hand was helpless and useless. The knee, if the patella were broken, was more fortunate, for owing to the wide gap left between the fragments stiffness was not so common unless, as occasionally happened, the upper fragment became glued to the lower end of the femur by adhesions. In sprains, when, for instance, the internal semilunar cartilage became displaced or torn, the effect was just the same. The knee became cold and stiff as a result of the treatment. It had to be massaged and douched for weeks before it regained anything like its full range of movement and sometimes it never did so, especially in a hysterical girl. Rest was undoubtedly necessary for broken bones or torn ligaments to unite, but absolute rest, combined with uniform pressure, uninterrupted for weeks together, was thoroughly bad for every other structure in the limb—thoroughly bad even when there had been no injury, and worse still when there was a large amount of extravasated blood and effused lymph filling up all the interstices and matting everything together. In the treatment of a fracture leading into a joint the object was to replace the fragments in their natural relation and to keep them there until they were joined. But the extravasation of blood and the effusion of lymph must be checked as soon as possible. All that had been poured out already must be absorbed and driven into the lymphatics as soon as it could be. The muscles must be prevented from wasting. The joints must not be allowed to become stiff and the nutrition, the blood-supply, of every structure and tissue in the limb must have as much attention paid to it as the union of the broken bone. This could only be accomplished by systematic massage, begun very quietly and gently the day after the accident and continued every day, doing a little more each time until the swelling had entirely gone and the joint could be moved by the manipulation through almost its full range. There were some cases in which the injury was too grave or the patient was too violent, but these were very few; and even in them the line of treatment must be the same although it could not be carried so far. The limb must be placed upon a splint so contrived that it could be exposed thoroughly by removing a bandage without risk of displacement. In a Pott's fracture this could be readily done by means of a back splint with a moveable foot-piece. In a Colles's fracture a Carr's or a Griffith's splint answered in the vast majority of cases provided that the fragments had once been got into good position, but in many only a guttapercha wristlet was required. A fracture of the patella, on the other hand, required wiring. Mr. Mansell Moullin stated that for many years past he had wired every case of fractured patella and had never had a moment's uneasiness about them. No splint at all was necessary. The knee was bandaged after wiring and the patient was placed in bed and encouraged to move it about. At the end of eight or nine weeks patients treated in this way were able to walk, to run, to kneel, or even to kick with the injured leg. The massage might be carried out by an experienced nurse but as a rule, at first at any rate, the surgeon should do it himself.

BRITISH GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held on May 14th, Dr. Heywood Smith, the President, being in the chair.—Dr. H. Macnaughton-Jones, using the epidiascope, showed Sections of Ovaries removed from patients who had for years been sufferers from incurable dysmenorrhœa. The sections (prepared by Mr. G. L. Eastes) showed a condition of cirrhosis and cystic degeneration throughout the entire substance of the ovary, the capsule being considerably thickened and the cellular elements

being almost indistinguishable in parts.—Dr. Macnaughton-Jones also showed a Uterus with the Adnexa removed by Professor Bumm's method. A carcinomatous mass occupied the fundus but the cervix was quite free from disease. The advantage of the operation (which Dr. Macnaughton-Jones had already described in the Journal of the society bearing date February, 1902) consisted in the rapidity with which it could be performed and its absolutely bloodless nature. Also there was no danger of wounding the ureters and the vault of the vagina could be dealt with according to circumstances. The operation was suitable to such a case as the present or comparatively small myomata or certain forms of malignant endometritis or deciduoma.—Mr. Charles Ryall confirmed Dr. Macnaughton-Jones's statements as to the bloodlessness and rapidity of the operation.—Mr. F. Bowreman Jessett, Dr. William Duncan, Dr. Mansell Moullin, and the President, while expressing their interest in Professor Bumm's method, concurred in the opinion that the uterus could be removed as quickly and with as little loss of blood by ligaturing the broad ligaments without forceps and they thought that the presence of such a number of the latter must be a disadvantage.—Dr. Bedford Fenwick showed two Enlarged Ovaries which had been adherent to a fibromatous uterus extending nearly to the ensiform cartilage and had therefore been removed with it. In a large number of hysterectomies he had found more or less gross disease of nearly every ovary and tube and if that were the case generally he thought it would be a grave error not to remove the ovaries with a diseased uterus.—Dr. Herbert Snow said that pain, though mainly due to tension of the capsule, might also arise from peritonitis or pressure.—Mr. Jessett, Dr. C. H. F. Routh, Dr. F. A. Purcell, and Dr. Duncan, while agreeing that the amount of disease shown in the sections quite justified the removal of the ovaries, spoke strongly in favour of conservative measures and of the importance of preserving a portion of even one ovary.—Mr. Jessett opened the discussion of his paper on Intestinal Obstruction, a rare complication of Ectopic Gestation, which was read at the last meeting. He said that owing to the pain being entirely above the umbilicus the case had been diagnosed as one of diaphragmatic pleuritis. The patient when he saw her had all the symptoms of intestinal obstruction. She had not been pregnant for nine years and her menstruation had been regular until, five days previously, she was suddenly seized with pain between the umbilicus and ensiform cartilage and became collapsed. An operation was performed but death ensued the same night.—Dr. Mansell Moullin said that he had met with two somewhat similar cases.—The meeting concluded with some further demonstrations from the epidiascope.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The eighth meeting of the session was held in the Medical Library, University College, Bristol, on May 20th, Mr. G. Munro Smith being in the chair.—Mr. John Chiene, professor of surgery, University of Edinburgh, gave an address on Movement, laying special stress on the importance of voluntary movements in the treatment of fractures and sprains.

Reviews and Notices of Books.

Therapeutics of Infancy and Childhood. By A. JACOBI, M.D., LL.D. Third edition. London and Philadelphia: J. B. Lippincott Company. 1903. Pp. 560. Price 18*s.* net.

IT is probable that the first edition of Dr. Jacobi's "Therapeutics," which was published in 1895, was not extensively read in this country except by those who make a special study of the diseases of children. Times change, however, and the industry of American authors and publishers has introduced so many excellent medical text books to the notice of our own students that it has become a fashion among us to rely on American publications for much of the information which is necessary for our professional education. In no department of medicine is this confidence in American books better justified than in those which are concerned with the diseases of children. Dr. Jacobi may fairly be regarded as the father of pediatrics, and although he is better known to fame as a clinician than as a writer, owing to the respect with which everything which he has to say on the subject of treatment is received in this country, it may safely be assumed that the present edition of his "Therapeutics" will be far more widely read than was the case with the former editions. The volume under review is a systematic and complete treatise on the therapeutics of childhood and it is by no means confined to medical subjects but includes the treatment of a number of conditions which more usually come within the province of the surgeon. For instance, anatomical deformities, congenital luxations, fractures of bones, hernias, and hydrocele all receive the attention of the author. Although the various conditions are seldom illustrated by cases, nevertheless, without this popular method of making a work on therapeutics interesting, the author contrives to hold the reader's attention by the vigour and directness of his style.

Dr. Jacobi, as is well known, is no great believer in drug treatment and much of his advice depends on the application of prophylactic measures and dietetic and hygienic management. He appears, however, to have faith in the administration of arsenic and phosphorus in the treatment of cases which depend on constitutional dyscrasias and neurasthenic states. Dr. Jacobi, in common with many other experienced clinicians, has certain prejudices in treatment. For instance, his confidence in decoctions of cereals and dextrinised flours in the routine feeding of infants appears to us to be put on a higher pedestal than it genuinely deserves. We do not imagine that there are many authors who would contest with him his right of priority in the usage of these diluents, nor do we regard the question as of sufficient importance to make it a ground for dividing the medical world into two classes, the faithful and the unfaithful, those who believe in cereal decoctions and those who do not. The truth is that in experienced hands success in the feeding of infants can be achieved either with or without the assistance of any diluents other than water. Another matter with which we have greater sympathy is the free administration of water to infants and children as a routine practice. This is a humane and scientific precaution which is too often neglected. Another point which Dr. Jacobi urges is the superiority of cane sugar as opposed to milk sugar and he adduces arguments in favour of the former which we do not consider to be convincing. On the subject of cream the author's views do not agree with those which are generally held. He minimises the troubles of nutrition which may arise from a deficiency of this element and we cannot help thinking that he exaggerates the dangers which are likely to accrue from excess. For instance, he apparently regards the production of rickets as almost independent of starvation as regards fat. He considers over-alimentation as at least as dangerous as under-alimentation in the production of this nutritional disorder and in this latter contention we are disposed to agree with him, although this view is not generally held.

In discussing the question of difficult dentition we notice the statement that "dentition is a physiological process" and that "the long period of dentition is also the time of many disorders and diseases which are not easily diagnosticated and may tempt the practitioner to suggest or accept a diagnosis of difficult teething," and further he says, with an undercurrent of sarcasm, that "there are, fortunately, practitioners who prefer making a diagnosis of the real condition of the ailing baby, and that and its improvement or cure comprise the main treatment I recommend for *difficult dentition*." The aphorism that dentition is a physiological process is a meaningless truism which has crept into one text-book after another until practitioners almost hesitate to ascribe any of the conditions

which they meet with during the period of dentition to causes which directly follow from this "physiological act," lest they expose themselves to the ironical gibes of superior persons. Of course, nobody doubts that the act of cutting milk teeth is just as much a physiological process as that of cutting the wisdom teeth, or, for the matter of that, of the act of parturition, but all the same the three processes are, unfortunately, apt to cause a disturbance in certain subjects of the general bodily equilibrium which is, to say the least, exceedingly disagreeable to the victims. It is true that bronchial, gastric, or intestinal symptoms frequently arise during the period of dentition in infants who have been mismanaged and that these symptoms might never have arisen had no such mismanagement been in force, but the general disturbance of the nervous system which occurs from the peripheral irritation of the erupting tooth must legitimately be regarded as the exciting cause of the special morbid manifestations in the weak or mismanaged organ.

There are several minor points which a careful reading of this book may suggest for criticism. We notice on p. 5 that it is stated that "in face of the fact that the percentage of fat in cow's milk and in human milk is practically the same, the addition of cow's cream to cow's milk to make it more similar to woman's milk does not appear very rational." The *rationale* of the procedure would be more evident if the author had used the expression "diluted cow's milk" instead of "cow's milk." We imagine that cream is never added by reasonable persons to undiluted cow's milk for the purpose of infant feeding or for the purpose of bringing it up to the standard of human milk. On p. 132 there is the following sentence: "Laryngismus stridulus, the crowing inspiration of infants, is almost always connected with craniotabes and caused by its meningeal and encephalic results." And on the following page it is stated that "the arteries in rhachitis are abnormally large and that the great width of these vessels lowers the blood pressure. That is why the muscles and bones suffer from insufficient nutrition and why the circulation in the respiratory organs is slow and sluggish, with a tendency to produce congestion and catarrh." These pathological explanations are not, to our thinking, convincing or logical.

In his preface Dr. Jacobi acknowledges that he has freely availed himself in the revising of his book of the criticisms of reviewers. We may therefore be pardoned if we add one more criticism and call attention to the word *nucleon* which appears in several pages and also in the index and which presumably is not a *lapsus calami* or a printer's error; *nuclein* is, we imagine, the word which Dr. Jacobi intends to use. In conclusion, we may say that the main principles of treatment which he recognises and describes are quite beyond criticism and we strongly recommend all those who take a practical interest in the treatment of infants and children to add this volume to their libraries and to refer to it whenever they find themselves in a difficulty or come to the end of their own therapeutic resources.

Atlas und Grundriss der Allgemeinen Diagnostik und Therapie der Nervenkrankheiten. (Handbook of the General Diagnosis and Treatment of Diseases of the Nervous System.) By Dr. W. SEIFFER, Lecturer to the University and Senior Surgeon to the Hospital of Royal Charity for Nervous Diseases. With 24 Plates and 264 Illustrations. München: J. F. Lehmann. 1902. Pp. 380. Price 12s.

THIS is the twenty-ninth volume of Lehmann's series of medical handbooks, which has already won a considerable reputation on account of the excellence of the plates and drawings by which the subjects of the series are illustrated. In the present volume this feature is well maintained. The text is admirably illustrated with reproductions from photographs of patients suffering from the diseases under consideration and the coloured plates are especially worthy of the highest praise. The text is quite satisfactory so far as it goes but it cannot be said to give more than a very elementary outline of the subject. The greater part of the book is devoted to the symptomatology and diagnosis of nervous diseases. The author deals with his subject by the inductive method. Facts to be observed—namely, the signs and symptoms of disease—are first considered and then the diseases which may give rise to them. This part is therefore arranged according to the nature of the symptoms. Motor phenomena are taken first—conditions of paralysis, atrophy, incoördination, spasticity, and contracture; then follows an account of sensory disturbances; and finally reflex, vaso-motor, trophic, and visceral disturbances are brought under review. While this method possesses certain advantages from a practical point of view it fails to give a well-defined picture of a symptom-group representing a certain disease, and it is only by possessing some such mental picture that one nervous disease can be clearly differentiated from another. In a book specially devoted to the diagnosis of nervous diseases the reader would expect to find perhaps a fuller discussion of the lesser signs and symptoms as aids to difficult differential diagnosis, especially in regard to the localisation of cerebral and cerebellar tumours; but as the title indicates the subject is only treated in a very general manner and the book is to be regarded therefore rather as an adjunct to the ordinary text-book than as a complete manual on the subject. In the second part, which deals with the treatment of nervous diseases, the author enters into practical details of considerable value in the treatment by massage, electricity, baths, and exercises.

Les Injections Mercurielles Intramusculaires dans la Syphilis. (Intramuscular Injections of Mercury in Syphilis.) Par Dr. ALFRED LÉVY-BING, Ancien Externe des Hôpitaux, Ancien Interne de Saint-Lazare. Paris: C. Naud. 1903. Pp. 322. Prix 5 francs.

IN this interesting treatise Dr. Lévy-Bing gives a full account of his experiences in the treatment of syphilis by the intramuscular injection of mercury. In the space of two years he has carried out more than 6000 injections on about 500 patients. These injections were made with all the different mercurial preparations now on the market for the purpose and he is therefore in a position to draw definite conclusions as to their relative merits and demerits. The first few chapters are devoted to a consideration of the advantages and disadvantages of this form of treatment, the indications and contra-indications for their use, and the technique of the injections. The author claims for this method of treatment that the quantity of mercury received into the system is known exactly and that it can be accurately controlled, that it brings the patient more rapidly and surely under the influence of the drug, and that it does not cause the same gastro-intestinal disturbances as when it is exhibited by the mouth. Its chief drawbacks are: (1) the pain accompanying the injection and (2) the local disturbances—inflammations, indurations, and abscesses—which may arise at the sites of injection. The rest of the book is taken up with a description of the author's experiences with each mercurial preparation. In every case he gives the pharmaceutical details of the preparation, together with the dose for injection, and exemplifies its action by cases. The chief indications for which he recommends the adoption or rejection of a preparation are: (1) the pain caused by the injection; (2) its liability to set up local trouble; (3) its tendency to cause mercurial symptoms; and (4) its medicinal efficacy. The preparations are divided into soluble and insoluble. The soluble act more rapidly and are less painful but have the disadvantage of requiring daily repetition, whereas the insoluble

preparations need only to be injected about once a week. Of the soluble preparations Dr. Lévy-Bing considers the biniodide of mercury in aqueous solution to be by far the best both on account of its efficacy and also its innocuousness. The perchloride is more painful and frequently gives rise to stomatitis and diarrhœa. Among the insoluble compounds the so-called "huile grise" is recommended, consisting of a mixture of mercury, lanoline, and vaseline. Calomel is by far the most rapid and efficacious in its action, but its injection is very painful and frequently gives rise to local inflammation and even abscess. Most of the other preparations are condemned either on account of the pain and local trouble to which they give rise or on account of their medicinal inertness.

The treatise is a valuable contribution to an important branch of therapeutics and is a thoroughly scientific record of the author's experiences.

Variations in Animals and Plants. By H. M. VERNON, M.A., M.D. Oxon., Fellow of Magdalen College, Oxford. London: Kegan Paul, Trench, Trübner, and Co. 1903. 8vo, pp. 418. Price 5*s*.

DR. VERNON in his preface to this contribution to our knowledge of the subject of variation apologises for making a large use of instances collected by himself from his own original investigations into the subject. This apology we consider to be quite unnecessary and, indeed, the very fact that the author has relied largely upon his own views and discoveries not only adds to the interest of the book but raises it at once above the level of the mere manual. It is an example—which might with advantage be more universally followed—of precisely the right method of book-producing.

At the present moment the facts of, and theories concerning, variation occupy a very prominent position in the biological world. Many workers in this country and abroad are concerned exclusively with these important problems of which the solution, if indeed it be possible at present, will provide the key to the explanation of evolution. The novice in these matters who would be abreast of current discovery and speculation is led by degrees from ascertained facts to its interpretation and in a very clear fashion is introduced to the methods now in vogue of representing in a graphic way the facts of variation. The more severely mathematical methods of stating these facts are not put forward by Dr. Vernon. There is thus nothing to prevent the person of average intelligence from profiting much by a perusal of this plain statement of variation in animals and plants. Naturally, as the author is himself a zoologist, the facts of animal variation preponderate over those of plant variation. Dr. Vernon is committed to no particular theories; he reviews and discusses the facts in a perfectly fair manner, and without any of that acrimony which this particular study seems to have produced in its votaries. Such ferocity of controversy is, we fear, rather a hint that the matters debated are, after all, not nearly ripe for solution, if, indeed, they ever will be; for it is invariably subjects quite or almost unknowable which breed rancour in disputants. The believer in every cause of variation will find some facts to support his views in this volume. The direct effects of external agencies, such as light and food, are amply stated and the author by no means thinks that natural selection is the "universal key," as is apt to be held by the more extreme followers of Darwin and Weismann. Some highly important experiments made 40 years ago by Mr. Gregson upon the effects of change of food upon the adult moths hatched from the caterpillars thus experimented with are appreciatively quoted by Dr. Vernon; and a very remarkable case of a similar nature recorded by the late well-known entomologist Mr. Newman is cited as an instance of the direct effects of food. This naturalist fed the "large tortoiseshell" butterfly caterpillars upon nettles and discovered that the resulting butterflies had many of the characters of the "small tortoiseshell," a species which normally feeds upon that plant. There can, in fact, be no doubt whatever that direct influences of the environment play an important part in the production of new varieties, and that therefore they must have played such a part in the past. More important, of course, from the point of view of the origin of species is the fact recently stated by Dr. Standfuss that an artificially produced variation "bred true" and produced its like. It is plain, therefore, that that entomologist has produced an actually new form of life. But though it may be shown, and in our opinion has been shown, that variation can be produced by varying salinity of water, by varying temperature, and by other such causes the action of natural selection is not necessarily thereby eliminated. On the contrary, it is easy to see on theoretical grounds where it could "come in" in many of these cases. The real difficulty for the believer in natural selection as the sole cause of survival is to connect its eliminating action with minute variations which seem to have, as it were, no utility. It is intelligible, for instance, that the minutest increase of lung tissue or of the thickness of the ventricles in a running animal might just make the difference between its capture by a carnivorous pursuer or its escape, but it is not so clear why the minute differences of microscopic sculpturing upon the bristles of annelids should occur. In this direction lie the labour and toil for those who would ascend from the pit of ignorance.

Atlas und Grundriss der Topographischen und Angewandten Anatomie. Von Dr. med. OSKAR SCHULTZE, a.o. Professor der Anatomie in Würzburg. Mit 70 Farbigen Tafeln nach Originalen von Maler A. SCHMITSON und Maler K. HAJEK, sowie 23 Textabbildungen. München: J. F. Lehmann. 1903. M. 16. (*An Atlas and Epitome of Topographical and Applied Anatomy.* By Dr. OSCAR SCHULTZE of Würzburg. With 70 Coloured Plates after originals by A. SCHMITSON and K. HAJEK, and 23 Illustrations in the text. Munich: J. F. Lehmann. 1903. Pp. 156. Price 16 marks.)

DR OSKAR SCHULTZE adopts as his motto the words, "think anatomically if you would be a physician." This atlas and epitome of topographical and applied anatomy of which he is the author will certainly engender this method of thinking in those who read it. The volume has the advantage of being of handy size (about 8 by 10 inches), which is double that of the series of hand atlases which we already owe to German enterprise. This increase in size is a decided gain, allowing a far better display of the plates. The work is beautifully illustrated and the descriptive letterpress is concise but at the same time more than a bare enumeration of unconnected but important anatomical facts. The book is arranged in sections, each of which is devoted to a different region of the body, the head, neck, upper extremity, thorax, abdomen, pelvis, and lower extremity being treated in the order mentioned. At the end of every section is printed a series of examination questions calculated to bring into prominence important points and to afford a ready test of the information acquired by the reader. The whole work is essentially practical and the illustrations have been chosen with considerable discrimination. All the coloured plates are good and the majority of them are of a very high order of excellence. Half a dozen of the plates are representations of His models with which most, if not all, English students are familiar. Many of the others are drawn from formalin preparations. The lithographic plate No. 10 and the coloured plate No. 54 showing the relations of the thoracic aorta are very instructive, as also is Fig. 54 which brings out in a striking

manner the relation of the œsophagus to the sinus obliquus of the pericardium. In Plates 35 and 36 an error in "register" involving the red colouring of the vessels creates considerable confusion. Some plates indicating segmental nerve distribution and the distribution of cutaneous nerves might have been added with advantage. It will have been noticed from the remarks already made that medical as well surgical anatomy finds a place in the atlas. There is a copious index and the book will no doubt prove valuable to advanced students and to practitioners.

PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.

SANATORIUMS FOR WORKMEN.

A SPECIAL meeting of the Board of Delegates of the Hospital Saturday Fund was held at the office of the Fund, 54, Gray's Inn-road, London, W.C., on May 23rd, to receive Mr. G. W. Smyth's report on his recent visit to German sanatoriums for the treatment of tuberculosis and to urge the claims of the workers of London suffering from this disease for adequate accommodation within easy reach of the metropolis. Sir Savile Crossley, Bart., M.P., presided and was supported by an influential deputation from the National Association for the Prevention of Consumption and other Forms of Tuberculosis, consisting of Sir William H. Broadbent, Bart., the Right Hon. Sir Herbert Maxwell, Bart., M.P., Dr. Alfred P. Hillier, and Mr. Malcolm A. Morris.

On the invitation of the CHAIRMAN, Sir WILLIAM BROADBENT explained the objects of the National Association, pointed out the urgent need there was for additional sanatoriums in the neighbourhood of London, and referred in complimentary terms to the coöperation of the Hospital Saturday Fund in accomplishing the aims of the National Association.

Mr. R. B. D. ACLAND, late chairman of the Fund, moved:—

That, in the opinion of this meeting, it is desirable that an effort should be made to increase the accommodation for persons suffering from tuberculosis in London and suburbs and that the executive committee of the Hospital Saturday Fund be requested to form a committee of representatives of all organisations of the workers of London with a view of considering the advisability of providing sanatoria within easy reach of London for the reception of tuberculous patients on terms that would be within the means of the working classes.

In doing so he said that the interest already shown in this matter by the Fund and its position with regard to the workers of London justified them in taking the initiative.

Mr. W. G. BUNN, secretary of the Fund, in seconding the motion stated that the Fund had endowed 14 beds in several institutions for the treatment of this disease both in London and in the country but the accommodation was most inadequate, patients in some cases having to wait four or five months for admission. Mr. Bunn gave details of the sums charged at many sanatoriums, proving that they were mostly beyond the means of the working classes, and he advised that the Lord Mayor should be asked to call a meeting of those interested in the matter at the Mansion House at an early date. The motion was carried unanimously.

Dr. THOMAS D. LISTER moved:—

That the voluntary notification of cases of phthisis attended with tuberculous expectoration and the increased preventive action which it has rendered practicable have been attended by a promising measure of success and that the extension of notification should be encouraged in all districts in which efficient sanitary administration renders it practicable to adopt the necessary measures.

He gave instances of the good results which had attended notification both at home and abroad, after which some remarks were made by Mr. A. J. DEAR, Sir HERBERT MAXWELL, and Sir WILLIAM BROADBENT. The motion was then carried.

Mr. MALCOLM MORRIS moved that—

In view of the fact that tuberculous sputum is the main agent for the conveyance of the virus of tuberculosis from man to man, indiscriminate spitting in all public places, and in or on all public vehicles, should be discouraged and prevented as far as possible in all workshops and places of business.

He referred to the fact that since the foundation of the National Association five years ago the coöperation of the laity with the medical profession in this matter had been assured. He thought that some men spat anywhere and everywhere as a sort of sign of their independence, but he claimed that they had no right to offend in this way against good manners and the public health.—Mr. WYATT SARGENT seconded the motion and Dr. HILLIER, in supporting the motion, advocated the use of a pocket spittoon in workshops and elsewhere by men who in consequence of disease were obliged to spit. This motion was also carried unanimously.

The proceedings terminated with votes of thanks to Mr. Smyth for his report, to the deputation for their attendance, and to the Chairman for presiding.

DIDWORTHY SANATORIUM.

The Devon and Cornwall Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis met at Brent near Dartmouth on May 20th. The Earl of MOUNT-EDGCUMBE, who presided, said that the sanatorium committee which was formed at the mayor's meeting held in Plymouth in May, 1901, had now completed the Didworthy sanatorium. The treasurer's report stated that the accounts showed a favourable balance of £42, of which sum £11 16s. were reserved for a bed in the sanatorium. The Earl of Mount-Edgcumbe was re-elected president and accepted the appointment, but expressed the hope that in future the president would be elected annually from different parts of the two counties. A meeting of the subscribers to the sanatorium was then held, at which the Earl of MOUNT-EDGCUMBE, who presided, expressed his satisfaction at the fact that the estimate of £6500 had not been exceeded by more than about £100. Mr. H. CECIL WILLS, the honorary treasurer, said that there was a balance of about £1200 owing to their bankers and to sundry creditors. Later in the day the sanatorium, which is about two miles from Brent, was opened by the Earl of Mount-Edgcumbe with a silver key presented to him by Colonel Foster on behalf of the committee.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON Thursday, July 2nd, the Fellows of the College will hold a meeting for the purpose of electing three Fellows to fill the three vacancies occasioned in the Council by the retirement in rotation of Mr. A. Willett, Mr. H. T. Butlin, and Sir Frederick Treves.

The following list of the 24 members of Council gives the date at which each member will retire; the date of the first election is given in every case in which the member has been elected to the Council more than once.

Retire in 1910: Mr. Howard Marsh (St. Bartholomew's Hospital (first elected 1892); Mr. J. H. Morgan, Charing-cross Hospital; and Mr. H. H. Clutton, St. Thomas's Hospital.

Retire in 1909: Professor A. W. Mayo Robson, Leeds Infirmary (first elected 1893); Mr. W. Watson Cheyne, King's College Hospital; and Mr. R. Clement Lucas, Guy's Hospital.

Retire in 1908: Sir Alfred Cooper (first elected 1892); Dr. J. Ward Cousins, Royal Portsmouth Hospital (first elected 1895); and Mr. A. Pearce Gould, Middlesex Hospital.

Retire in 1907: Mr. T. R. Jessop, Leeds General Infirmary (first elected 1891); Mr. H. W. Page, St. Mary's Hospital; and Mr. C. W. Mansell Moullin, London Hospital.

Retire in 1906: Mr. F. Richardson Cross, Bristol Royal Infirmary; Mr. Henry Morris, Middlesex Hospital (first elected 1893); and Mr. John Langton, St. Bartholomew's Hospital (first elected 1890).

Retire in 1905: Sir Henry G. Howse, President, Guy's Hospital (first elected 1889); Mr. Edmund Owen, St. Mary's Hospital; and Mr. Rickman J. Godlee, University College Hospital.

Retire in 1904: Mr. Thomas Bryant, Guy's Hospital (first elected 1880); Mr. T. Pickering Pick, St. George's Hospital (first elected 1888); and Mr. J. Tweedy, University College Hospital (first elected 1892).

Retire in 1903: Mr. A. Willett, St. Bartholomew's Hospital (first elected 1887); Mr. H. T. Butlin, St. Bartholomew's Hospital; and Sir F. Treves, London Hospital.

THE LANCET.

LONDON: SATURDAY, MAY 30, 1903.

The University of London.

THE election by the Senate of Dr. P. H. PYE-SMITH to be the Vice-Chancellor of the University of London cannot fail to be gratifying to the medical profession. The appointment of a member of our profession to this office is at once a recognition of the importance of medicine as a branch of higher education and of the part taken by teachers of medicine in the movement to establish in London a great university worthy of the metropolis. Dr. PYE-SMITH has been identified with this movement almost since its commencement and it is fitting that after 30 years' active service to the University he should be one of the first vice-chancellors to preside over the Senate in its reconstituted form. It is evident that the work to be performed by the Senate in the next few years will be very arduous. It is therefore satisfactory to notice that already this body has shown itself under the vice-chancellorship of Sir HENRY ROSCOE and Dr. ROBERTSON, now Bishop of Exeter, determined to carry out the task imposed upon it—a task which is made extraordinarily heavy by the immense size of London and by the absence hitherto of any body capable of coördinating higher education. It must, however, not be forgotten that the powerful and well-organised party which has persistently opposed the establishment of a teaching university for London was able to secure in the new charter opportunities of representation upon the Senate. It is only natural that, having opposed the reconstitution of the University, this party should endeavour to hamper the work which the reconstitution was designed to make possible of achievement. It therefore behoves all those who believe that a university should not only be an examining board mechanically testing and weighing items of knowledge possessed by those aspiring to its degrees but should take an active part in providing opportunities for acquiring the highest mental culture and in promoting research to continue the organised efforts which led to the passing of the University Act three years ago.

The results of the recent election of senators by convocation seem to indicate that our appeal to the party of progress is not uncalled for. The fact that the re-election of so well-known and so highly esteemed a senator as Sir THOMAS BARLOW should have been seriously imperilled by a graduate whose name was not upon the annual list of members of convocation at the time of the election, is an indication that in educational as in imperial politics it is not sufficient to rely upon the strength of a candidate or the righteousness of the cause he represents. The hollowness of the widely and frequently circulated cry upon which Sir THOMAS BARLOW'S opponent based his claim for election was shown by the result of the debate at the meeting of convocation at which the election took place. It was loudly asserted that Sir THOMAS BARLOW had entirely failed in his duties as a senator by allowing changes in the medical curriculum to be adopted which would lower the value of the medical degrees and imperil the reputation of the University. To prevent these disasters it was announced that convocation would be invited to pass motions protesting against these changes and that the new medical senator would see that those protests were acted upon. Although it was in medicine that these retrograde steps were to be taken the two chief motions submitted to convocation were intrusted, one to a representative of the Faculty of Science and the other to a lawyer. One of these gentlemen having occupied more than the time allotted to any speaker by the rules of convocation sat down without moving the proposal of which he had given notice; the other obtained leave to withdraw his motion as soon as his eloquent and impassioned attack upon the Senate had been proved to be quite groundless by the moderate statements of Dr. J. F. PAYNE and Dr. J. R. BRADFORD. Meanwhile the graduates in the country had duly filled up their voting papers in the hope of saving the University from its supposed peril and Sir THOMAS BARLOW was returned by a small majority.

The most interesting speech in convocation was that delivered by Sir ALBERT ROLLIT which indicated in no uncertain way that some of those who had in the past opposed the granting of a new charter had upon a closer examination of the problems of education in London determined to do their best to make full use of the University's new powers. We are sure that this feeling will gradually commend itself more and more to the great body of graduates in medicine throughout the country. At the same time we would urge upon those interested in securing the election of senators likely to further the work of education not to allow in the future inaccurate statements to be placed before the electors without contradiction. The University wants men and it wants money. United action by those who are doing their best in the schools and in the Senate and those who have as undergraduates and graduates received the benefit of university education, will insure that these two wants are adequately supplied.

Turning to the question of the changes proposed in the medical curriculum by the Senate, the propriety of which was made the test question at the election, we note that the new regulations have not received the sanction of the Privy Council and therefore are not officially published. Copies, however, have been sent to the schools and there is little doubt that in their present form they will ultimately govern the various courses of study. It should be remembered that for four or five years before the reconstitution of the University the Senate was actively engaged in remodelling the curriculum and was in frequent consultation with the medical schools and with the University examiners upon this question. The scheme devised by the old Senate was only held back because it was recognised that under the new constitution further changes were inevitable and that constant modifications of regulations were very detrimental to the efficiency of teaching. It is, therefore, not surprising that the changes now proposed are very numerous and that with regard to some of them there should be

differences of opinion. From a careful review of them we unhesitatingly state that in our opinion the curriculum is a great improvement on that at present in force and that students who follow it will be better medical practitioners than would have been the case had they studied under the former scheme. We agree with the statement made by Dr. BRADFORD in convocation that under the new regulations the schools will be further encouraged to develop higher education and research in many departments, especially in physiology and pathology. We would urge those who are disposed to take exception to special details to remember how very complicated a question medical education has become and how impossible it is to please all parties. It cannot be decided how some of the changes will work out till they have been put in practice. The ease with which teachers are now able through the Faculty of Medicine to draw the Senate's attention to defects in the curriculum and to submit proposals for its improvement should insure the speedy discovery and correction of any points that have been overlooked in drafting the new regulations.

Another subject of interest at present under the consideration of the University is the question of instituting special degrees in dentistry to which we called attention in our last issue. The statutory commissioners established a board of studies in dentistry and this board having been duly constituted recently presented to the Senate a report upon the question of degrees. This report, together with a minority report, was last week submitted to a meeting of the Faculty of Medicine. As will be seen from a notice of this meeting in another column the faculty expressed an opinion adverse to the proposal to establish special degrees. As both the majority and minority reports recommended that degrees should be instituted it would appear at first sight that the faculty had shown a want of sympathy with the desire of the dental profession. As the result, however, of some unexplained cross-voting by members of the board of studies upon a somewhat irrelevant amendment the issue presented to the faculty was confused. As we stated last week the question is an important and difficult one and we trust that the proposal will not be abandoned without further careful consideration. Upon those interested in this question, as well as upon those interested in the general development of the University, we would urge the importance of united action and efficient organisation.

The Infected Blankets.

WHETHER or not the outbreak of enteric fever which occurred on board the reformatory ship *Cornwall* is to be attributed to the infected blankets which were discovered on the vessel is a matter concerning which an open mind must be preserved until the matter has been investigated in a systematic fashion and a report thereon issued. If the necessary detailed investigation has not yet been commenced it is to be hoped that the Local Government Board or the Home Office will undertake it. But whatever may be the facts as to the causation of the outbreak there can be no two opinions as to the necessity for fixing the blame upon those responsible, either in a positive or negative sense, for the dissemination over this country and, for anything we know to the contrary, other countries of soiled and, at least in some instances, specifically soiled blankets. Whether blankets alone have been thus scattered, or whether, in addition, other disused and possibly infected material has found its way into public use cannot be yet stated, but we trust that inquiries in this direction will be made by the authorities concerned.

That there are certain regulations which are intended to prevent the sale of infected bedding is but small comfort to the public in the circumstances, since it is clear that the regulations are in point of fact not sufficient to prevent such materials from falling into the hands of the public. It would, of course, be unreasonable to assume that the whole of the blankets which it is alleged were sold at the Cape for 2½*d.* apiece were blankets which had been used in hospital by patients suffering from recognised enteric fever. It may, indeed, be subsequently found that at least some of the blankets which have been demonstrated bacteriologically to contain the living enteric fever bacillus may have been used by soldiers who were in the early and unrecognised stage of the disease and who had passed on to other places, leaving behind them the blankets which they may have specifically soiled. But however this may be, the fact that in practice blankets, an uncertain number of which are infected, have found their way into the public market remains, and the public health service of this country has a right to ask not only that the matter shall be probed to the bottom but that satisfactory assurances shall be given that a recurrence of such a risk, on however small a scale, has been provided against. It cannot, we think, be said that the answers given in the House of Commons to questions directed to the elucidation of the mystery have evinced a sufficiently serious appreciation on the part of the War Office of the material risk which has been run by the public, and although there is obviously no need for alarmist statements we trust that the lay public health service will urge upon the Local Government Board the necessity for pressing the thorough investigation of the subject. If our port sanitary authorities throughout the country are to have placed upon them the duty of disinfecting all the bedding, clothing, and the like, which reach our shores during months or years after the cessation of the numerous campaigns in which this country is at intervals engaged, the claim for a national subvention which the port sanitary authorities have made from time to time will be very difficult to resist. It would seem clear, however, from the recent occurrences that no disused bedding, whether it has served for hospital purposes or not, should be placed upon the markets until it has been cleansed and *efficiently* disinfected. The seizures of blankets which have now taken place in numerous parts of this country will possibly lead to unfortunate action on the part of the owners of such goods, and this is more likely to be the case in places where the absence of proper plant for cleansing and efficient disinfection has resulted in the destruction of the blankets. Every local authority ought morally, if not legally, to possess plant wherewith both these processes can be performed. The necessity for the previous washing of the blankets in cold water arises, apart from general

principles of cleanliness, from the fact that the process of disinfection by steam, which, as is well known, is the only method by which efficient disinfection can be performed, is apt to fix permanently any pre-existing stains. But we would urge upon local authorities the importance of incurring no risk as to the public health and if the infected articles cannot be adequately disinfected we trust that no parsimony will prevent the destruction of the articles in question and the payment of a fair compensation to the owners.

In some ways this regrettable occurrence will expose us to the ridicule of certain other nations, but nevertheless in no other country in the world does there exist a public health service which could have acted with greater promptitude and efficiency than has been the case in this country. The action of our port and inland sanitary authorities and of the central health department has been such that the country may well feel proud of its sanitary administration. From a purely scientific standpoint the occurrence is not without importance as it raises interesting points as to the persistance of vitality on the part of the enteric fever bacillus when this organism is retained in circumstances unlikely to promote its destruction. Much useful work in this direction has already been done by Dr. Sidney Martin and Dr. A. C. Houston for the Local Government Board, and Major R. H. Firth and Major W. H. Horrocks have also made valuable contributions to the subject. In this connexion we are glad that the desirability of a joint inquiry into this subject by the War Office and the Medical Department of the Local Government Board has been pressed upon the authorities.

The Collection and Distribution of Milk.

Divergent opinions are held by bacteriologists and by medical practitioners whose work lies chiefly among children as to the advisability of sterilising the milk which is given to infants. It is maintained by many that the process of sterilisation causes a degree of depreciation in the food value of milk which is not compensated for by the diminished risk of infection through the agency of the micro-organisms which milk is apt to contain and for the development of which it forms such a suitable medium. On certain points, however, there is general agreement. The importance, for instance, of subjecting milk to as few chances as possible of becoming contaminated is not likely to be disputed and to achieve this the collection and the distribution of the fluid must be conducted with the strictest sanitary precautions. Again, in order that the milk of cows shall realise for human beings that ideal of the "perfect food" which elementary text-books of physiology credit it with approaching, it must undergo certain modifications and these may take one of two directions—the production, on the one hand, of a nutritive agent approximating in composition as closely as may be to normal human milk or, on the other, of a substance which is neither cow milk nor "humanised" milk, but which is specially adapted to meet some particular abnormal digestive condition In regard to all these matters much has been done in this country. Sanitary authorities acting through their medical officers of health are now able to exercise a considerable degree of control over the supply of milk to the districts within their jurisdiction, while private enterprise on the part of the larger dairies has made provision to satisfy the demand for preparations made from milk. At Battersea and at St. Helens in Lancashire the respective borough and county councils have entered the field as purveyors of milk of guaranteed purity. Although their undertakings can hardly be said to have passed beyond the experimental stage we have evidence of a public spirit which is worthy of commendation. Something is also done by health officers in the way of circulating leaflets bearing upon the relation of the consumption of milk to infectious disease and recently it has been suggested that systematic instruction as to the possibilities, for good and evil, of milk should be imparted in board schools, at least to the elder girls.

But there is still room for improved methods of disseminating knowledge and it would seem that here, as in so many other instances, we have something to learn from our continental friends. From May 2nd to 10th there was held in Hamburg an Exhibition for Promoting the Hygienic Supply of Milk which, since it affords many useful hints as to further progress, may be considered in some detail. The exhibition was divided into sections dealing with the milk question in many of its aspects. Thus in Section A, which was devoted to "milk production," were shown cows of well-known breeds which were made the subject of important demonstrations in the art of milking and the general management of shippons. The best styles of stall fittings and of utensils for the collection of milk were displayed, while the matter of suitable clothing for the milkers received attention. In Section B, which dealt with the veterinary control of the cows and of the milk-supply, information was supplied in regard to legislation relating to the control of cowsheds. The measures to be taken in case of an outbreak of disease among cows were set forth and an exposition was given of the forms of disease to which milch cows are liable, with special reference to diseases of the udder. Here, too, were included the effects of poisonous or otherwise unsuitable food-plants and of impure water This branch of the subject was completed by reference to the materials used and the procedure adopted in disinfecting the stalls. Section C was concerned with the utensils and apparatus employed in the conveyance of milk by road or rail or water and in its distribution. It embraced the weighing and measuring of the fluid and the cleansing and filling of bottles used for its storage. The processes of separation, cooling, pasteurisation, sterilisation, and concentration were also dealt with in this section. The fitting up of establishments, small and large, for the sale of milk was the subject-matter of Section D Section E had reference to the legislation concerning the sale of milk, the police supervision of dairies and milkshops, the taking of samples for analysis, and the chemical and bacteriological methods employed in such analysis. In the scientific Section, F, it was possible to learn something of the history and literature of the employment and distribution of milk and also of the means by which instruction in dealing with milk is provided. To Section G was allotted the display of preparations made from milk—e.g., preserved milk,

milk adapted to the requirements of infants, milk for therapeutical purposes, and milk foods of various kinds. Section H illustrated the arrangements and apparatus necessary for properly dealing with milk in private houses.

It ought to be possible to hold an exhibition of this kind in London. Whether to do so would be financially profitable to the promoters is, perhaps, doubtful, but the educational value of the proceeding would be so great as to justify contribution from the national purse. The idea, too, is one capable of development. Without obscuring the scientific aspects of the exhibition more popular elements might be added. The art and mystery of butter-making and sophistication might be expounded and demonstrations might be given of the manufacture of the many varieties of cheese. Experienced cooks might offer for inspection samples of the thousand-and-one dishes into the composition of which milk enters and a corner might be reserved for teaching something of the applications of koumiss. There is here, indeed, almost enough material for an Earl's Court exhibition, though it might be a little undignified to combine amusement with instruction, in the way beloved of the Londoner, by giving him an opportunity of shooting the chute on a milkman's barrow or by converting the great wheel into a gigantic churn.

Annotations.

"Ne quid nimis."

THE TREATMENT OF YOUTHFUL CRIMINALS AT THE ELMIRA REFORMATORY.

A VALUABLE and interesting report for the year 1902 dealing with the treatment of young criminals at the New York State Reformatory at Elmira has just been published. The total number of inmates who have been in the institution during the year was 2134, of which number 858 have been cases admitted during the year. 611 inmates were discharged from the reformatory during the year. Nearly three years ago a careful examination of the whole inmate population was made by Dr. Frank W. Robertson, then senior physician, and a number of inmates were found whose mental condition was so abnormal or disordered or defective that they were totally unfitted to derive benefit from the special advantages offered by the institution. They were accordingly transferred to the Matteawan State Hospital for the Insane. Dr. Robertson, now the general superintendent of the reformatory, states in his report that "the reformation of the unfortunates committed to the institution has been vigorously prosecuted during the past year." A marked improvement in caring for the bodily and mental health of the inmates has resulted in a lower annual death-rate than in previous years and the improvement of general physique has rendered them more susceptible to reformative measures. Owing to the fact that the inmates come principally from the lowest strata of society they are below the average standard of physique and bodily health, while they are mentally and morally below the normal standard. Very often born of dissolute, pauperised parents such a child is brought up in squalor and dirt, among companions who are equally unfortunate, without a school education as a rule, and therefore without the constitution, training, or education with which to make a proper start in life on arriving at the age of adolescence. "At this age," adds Dr. Robertson, "he frequently runs away and becomes a tramp, or is obliged to leave home and shift for himself," and being thus largely left to his own devices and finding it difficult to obtain a living he soon violates the law and is sent to prison or to the reformatory. Such is the class of youths sent to the Elmira reformatory for the special education and training which are devised to reform them and to make them fit and capable of earning an honest living in the State. The teaching and training undergone include systematic drill, education in reading, writing, and arithmetic from kindergarten to higher grades, and technical and practical instruction in trades and handicrafts suitable to the individual capacity of each inmate. The number who have daily instruction in the "trades school" has varied from 1100 to 1250. Among the trades taught are photography and etching, applied electricity, mechanical engineering and fitting up steam and other machines, carpentry, bricklaying and building and pattern making. Printing and bookbinding are also taught, and the excellently printed and bound illustrated volume of the report before us shows that the grade of skill attained in this department is high. Moral and religious teaching of a non-sectarian character occupies an important place in the scheme of education. The health of the institution was very good during the year, the total number of deaths being seven. The annual death-rate in recent years has been, in fact, much less than the normal death-rate among the general population of the State. The aim of the reformatory is to receive under sentence from the law courts a certain class of convicted youthful criminals and to return them to the community as intelligent non-criminal young men prepared to take places in the mechanical trades above the lowest ranks of labour. It involves the education of the inmate in a trade, in letters, and in conduct and presupposes that he has the capacity for such education. About one-fifth of the inmates, however, are found to be mentally defective in such a degree as to be incapable of more than slight improvement. The majority of the inmates, however, prove successful in achieving a moderate, and some few even a high, degree of skill in a trade and after discharge from the institution take their place among competent workers and wage-earners in the State. The report is valuable and highly interesting and deals with one of the most important social problems of the day.

LUNACY AND ALCOHOLIC EXCESS: A GROWING SOCIAL EVIL IN SCOTLAND.

THE alarming growth of lunacy in Scotland and especially of those forms of it attributable to alcoholic excess has moved the municipal authorities of Glasgow to appoint a special committee to inquire into, and to present a report upon, this matter. A copy of this report, which is now before us, dated April 27th, 1903, furnishes serious matters for consideration. The committee records with concern the fact that of 565 admissions to the Glasgow district asylums at Woodilee and Gartloch and 213 admissions to the observation wards of the poorhouses during 12 months no fewer than 259, or 33 per cent., have been traceable to alcoholic intemperance. The inquiries made by the committee and by the medical superintendents of the asylums show that want and privation were not elements in the production of these cases of alcoholic insanity, for in the large majority of instances the home conditions and surroundings were good and the earnings in 19 typical cases were from 19*s.* to 60*s.* per week. "It is beyond question," adds the report, "that a large number of the insane sent to the asylums in previous years and still inmates thereof are cases of the same nature, so that the question calls for the earnest consideration of the Government and the public." The committee accordingly has forwarded copies of its report to the Secretary of State for Scotland, the General Board of Lunacy, the town council, and the press. The condition referred to in the report is unfortunately not an isolated or exceptional one, for a perusal

of the reports of the Royal Edinburgh Asylum during the past few years bears out the same conclusion as regards alcoholic insanity in the capital of Scotland. The growth of lunacy in a ratio rather more rapid than that of the growth of the general population of the United Kingdom may now be regarded as a fact fairly well established, while it is also noteworthy that alcoholic insanity has been increasing on the whole somewhat rapidly during the past two or three decades in great cities and industrial centres. The whole problem, however, is a very complex one and so fraught with difficulties that much more light and knowledge are needed on the matter before any definite proposals, legislative or otherwise, can be recommended for dealing with this grave social evil.

THE LESSON OF THE GREAT MOTOR-CAR RACE FROM PARIS TO MADRID.

"IT'S the pace that kills" was surely never more painfully illustrated than in the series of disasters which took place in connexion with the great motor-car race from Paris to Madrid. The pleasure derived from driving a motor-car for many hours at a speed of anything over 60 miles an hour is one which is a little difficult to understand and which can only be realised with grave risk to the public at large. We need not enter into particulars but may record the fact that all possible types of accident occurred, resulting in four deaths of *chauffeurs*, serious injuries to six or seven participators in the race, and at least four deaths amongst the spectators. Motor-car racing is thus shown to be a danger alike to driver and to pedestrian. Much as the catastrophes must be deplored there can be but little doubt that they have carried a most striking lesson to the whole civilised world. High speeds cannot be tolerated on the highway so long as that highway is the common road for foot travellers and horse-drawn vehicles—and we are bound to add for animals of a more or less domesticated type, for who can be held responsible for the stray dog?—indeed, in the race referred to one of the motor-cars ran over a dog so that the car swerved and dashed into a tree, the *chauffeur* was killed, his companion badly injured, and the car smashed to pieces. As well might we expect it to be safe to allow a coach-and-four or a market cart to drive along the track of the London and North-Western Railway as far as Crewe. What control over a motor-car travelling at the rate of an average speed of 60 miles an hour can a driver be expected to possess when he suddenly encounters a big stone, a curve in the road, or something crossing his path at a cross road? In this country it would be mathematically impossible to take some of the curves of our high roads safely. The question is not what the motor driver is able to do with safety to himself but how far his operations should be controlled in the interest of the safety and comfort of the public. Drivers of motor-cars cannot be allowed to claim privileges which are not possessed by other users of the road. The interests of the public generally are the first consideration. The designers of the roads as originally made and maintained did not contemplate such a class of traffic as motor-cars and there are very few sections of English highways on which an average speed of 60 miles an hour could be permitted with safety. The English high-roads are seldom uniform in width, surface, or direction; indeed, it is constantly forgotten that after all England is a small island through which it is impossible to construct roads of the uniform straightness and width of the *via nazionale* of the Continent. We must not be taken to say that this fact is an absolute argument in favour of banishing motor-cars altogether from our highways, but we do urge that motor-car owners and drivers should possess their souls in patience until some sort of a compromise is effected which will adapt the roadway equally for all. The road must not be, can never be, a monopoly. We bear in mind the fact that in this country we have as far as possible kept the motor-racing instincts from having outlet on our highways; nevertheless, it must be admitted that in spite of this some ugly accidents have arisen. The motor bicycle already has been resorted to as a source of competitive struggle as regards speed on special tracks. In such a competition two persons lost their lives and several others were injured, the race being a comparatively short one, at Bristol last week. We are aware that something may be said against the placing of a legal limit upon the speed of motor cars, but it is necessary to bear in mind that those who can indulge in motor-car riding are an infinitesimal number compared with those who do not care, or else cannot afford, to do so, and the safety of the lives and the limbs of the public is the matter of first consideration. We venture, therefore, to think that the proposal to withdraw the speed limit is a dangerous one despite the fact that all responsibility is to be fixed upon the motor-car driver. Impending legislation should be directed, if possible, not to the extinction of the comparatively new, popular, and what will some day be a valuable, means of locomotion, but against its abuse, and we cannot resist the impression that a system of graduated speeds according to circumstances could be fixed which would place no undue restraint upon the motor-cars and which at the same time would afford reasonable protection to those who employ ordinary means of locomotion. Above all the mania for excessively high speeds must be discountenanced, at any rate, while high-roads are as they are, just as the "scorching" cyclist was very properly "scotched" a few years ago. Trials of speed are certain to bring discredit upon the motor industry which, presumably in its own interests, initiated them.

THE CYTODIAGNOSIS OF AFFECTIONS OF THE SPINAL CORD, WITH SPECIAL REFERENCE TO TABES DORSALIS.

MUCH attention has been given by neurologists during the past three years to the clinical study of the cerebro-spinal fluid and the subject of the cytodiagnosis of affections of the spinal cord. A valuable account of the facts ascertained and the results achieved in these respects in cases of tabes dorsalis, general paralysis, and other nervous affections is published in the *Revue Neurologique* of March 30th, the chief contributors being Professor Brissaud, Professor Widal, Dr. Pierre Marie, Professor Babinski, and Dr. Gilbert Ballet. In the first of these communications Professor Widal, Dr. Sicard, and Dr. Ravaut stated that since Babinski and Nageotte had reported their collected observations on the cytodiagnosis of 26 cases of tabes in May, 1901, much work has been done on the subject. These two authors had stated that a more or less marked lymphocytosis was present in the cerebro-spinal fluid in 25 out of the 26 cases examined. Since then Professor Widal and his colleagues had examined the cerebro-spinal fluid in 37 cases of tabes dorsalis, both of recent origin and of long standing, drawn from the wards of Professor Raymond and others. Lymphocytosis was observed in all these cases except one. In 30 cases the lymphocytosis was distinctly confluent and in six it was discrete. In all these cases the lymphocytes were sufficiently numerous to enable at least from six to 10 to be counted in each field of the microscope according to the technique pursued by the authors. These lymphocytes were the most numerous cellular elements present in the cerebro-spinal fluid, but sometimes large cells, which were difficult to classify as mononuclears or as endothelial cells, were also met with. The technique consisted in drawing into a sterilised tube a small but fixed quantity of the fluid which

was immediately centrifugalised for ten minutes. The supernatant fluid was decanted and the sediment was transferred by a fine pipette to a glass slide and allowed to dry at a temperature of 37° C. The specimen was then fixed in a mixture of equal parts of alcohol and ether, stained with hæmatoxylin and eosin or with thionin, and examined under the microscope. In normal cerebro-spinal fluid lymphocytes are altogether absent or exceedingly rare. In tabes dorsalis they are abundantly present, as also in meningeal tuberculosis, syphilitic meningo-myelitis, and in general paralysis of the insane. "Their presence is an indication of a simple process of irritation." The presence of polymorphonuclear leucocytes indicates a state of congestion or inflammation, as these elements come only from the blood-vessels by diapedesis. In syphilitic patients the occurrence of hemiplegia is followed by the appearance of lymphocytes in the cerebro-spinal fluid and the same appearance results from the growth of cerebral and spinal tumours which irritate or involve the meninges. On the other hand, in hysteria, epilepsy, neurasthenia, and typical polyneuritis there is no such lymphocytosis. "The virus of syphilis seems to have a predilection for attacking the meninges" and producing lymphocytosis. Professor Brissaud and Dr. Buandet stated in their communication that they had examined eight cases of tabes dorsalis. Seven of these were of three years' duration or less, and in all there was distinct or marked lymphocytosis. In the eighth case of tabes of 20 years' duration there was a feeble degree of lymphocytosis. Professor Babinski stated that he had examined 10 cases of tabes dorsalis and seven of general paralysis of the insane and that moderate or marked lymphocytosis was present in every case without exception. Dr. Gombault had examined 11 male and eight female cases of tabes dorsalis. In eight of these 19 cases there was abundant and confluent lymphocytosis, in two it was moderate, and in one it was absent. These last three were non-syphilitic cases of tabes. Dr. Gilbert Ballet had examined eight cases of tabes dorsalis, in five of which lymphocytosis was present. A similar condition was met with in six out of eight cases of general paralysis of the insane. Dr. Pierre Marie had examined 20 cases of tabes dorsalis of from two to 25 years' duration. In six there was abundant lymphocytosis, in 10 there was more than a moderate amount, and in three there was moderate lymphocytosis. Dr. Souques examined three cases of tabes dorsalis, in all of which abundant lymphocytosis was present. The consensus of observations made by the various investigators above named tends to establish the great diagnostic value of cytodiagnosis in organic affections of the spinal cord and goes far to show that a syphilitic causation is pre-eminently a factor in the production of lymphocytosis in the cerebro-spinal fluid.

ASPARAGUS.

CLOSE upon 100 years ago—to be exact, in the year 1805—a crystalline body since called "asparagine" was first extracted from the young shoots of asparagus, which proved to be of physiological importance. Asparagine is not, however, peculiar to asparagus, it is present also in beetroot, potatoes, the shoots of peas, beans, and vetches. Although asparagine contains more than a fifth of its weight of nitrogen, yet it is probable that it has no direct nutritive value. There is reason for believing, however, that it materially aids nutrition by promoting the absorption of proteids and carbohydrates, and it also has a tendency to counteract putrefaction in the intestine. So far, however, asparagus shows no physiological or dietetic advantage over other succulent vegetables which all contain asparagine in common. Nor is the nutritive value of asparagus greater than that of other tender vegetables. Over 90 per cent. of asparagus is water, the rest being made up of a small proportion of fat, carbohydrate, woody matter, and mineral substances. Asparagus is probably a valuable source of mineral salts which promote a healthy alkaline condition of the blood and is also a distinct anti-scorbutic. It is doubtful, however, whether asparagus possesses any dietetic superiority over the common cabbage, seakale, or spinach, or other green vegetable so long as these are tender, while it is decidedly less nutritious than the potato. But it is the æsthetic qualities of asparagus which make it so acceptable, an agreeable flavour playing an important rôle in the great nutritive processes. As is well known, an improved appetite and a relish for food increase the activity of the digestive function.

THE DISTRIBUTION OF PLAGUE.

As regards the Cape Colony the acting medical officer of health states that for the week ending May 2nd the condition of the various places mentioned below was as follows: At the Quarantine Station, Saldanha Bay, 2 Asiatic males remained under treatment in the hospital, both being convalescent. At Port Elizabeth 4 cases of plague have been discovered—namely, 1 European female (found dead), 1 native male on April 28th, and 2 native males, one of whom was found dead, on May 2nd. At the Plague Hospital, Port Elizabeth, 1 European male, 1 coloured female, and 1 native male were discharged cured during the week, leaving 13 cases under treatment. Plague-infected rats continued to be found in the town during the week. At East London 2 cases of plague were discovered during the week—namely, 1 native male on April 30th and 1 native female on May 2nd. At the Plague Hospital a native male died during the week, leaving 2 cases under treatment. At King William's Town 4 cases of plague were discovered during the week—namely, 1 native male on April 26th, 1 native female on the 27th, 1 native male (found dead) on the 30th, and 1 European female on May 2nd. At the Plague Hospital 1 native male and 1 native female died during the week, leaving 5 cases under treatment. At Graaff-Reinet and Burghersdorp no cases of plague and no plague-infected rats were found during the week, but at Queenstown plague-infected rats were discovered at the railway goods-shed. As regards the Mauritius, a telegram from the Governor received at the Colonial Office on May 22nd states that for the week ending May 21st there were 2 cases of plague, of which 1 proved fatal.

HUDDERSFIELD WORKHOUSE NURSING.

IN order to render less inefficient the nursing of the sick poor in workhouses a departmental committee recently recommended that a superintendent nurse should be appointed who should have general control of the sick wards instead of the master and who should exercise with the master a dual control over paid and pauper servants. These suggestions have been under the consideration of the Huddersfield board of guardians and a committee has proposed certain modifications which serve to call attention to the difficulties of the position but do little towards overcoming them. According to the scheme of the board the master or matron is to be in charge of the whole establishment, including the sick wards, and is to be intrusted with the duty of reporting to the guardians any neglect on the part of the superintendent nurse. The nurse, however, is to be responsible to the medical officer for the welfare and nursing of the sick. The matron is to look after the cooking of food for the sick and their nurses and after the making, mending, and washing of clothes and linen for the use of the sick. Stated broadly, the position will amount to this—the matron will be at once the superior officer of the superintendent nurse and her cook and washerwoman. As compared

with the matron the superintendent nurse will almost of necessity be a woman of higher education and quite possibly, outside the workhouse, of higher social grade. Moreover, the matron will be very frequently the wife of the master. Clearly, then, the opportunities for bickering and friction already available will be considerably increased and it is too much to hope that they will not be utilised. Stress is very properly laid by the Huddersfield board upon the desirability of separating the sick wards, and incidentally the superintendent nurse, from the main building and its guiding spirit, the matron; but this would be only a partial remedy. The only rational plan is to make the superintendent nurse responsible to the medical officer and to him alone. This is an arrangement which a nurse is accustomed to and understands, and it is one which experience has shown—for instance, in the case of the infirmaries in London—to be advantageous to all concerned.

THE DIRTY FOUNTAINS IN TRAFALGAR-SQUARE.

A FOUNTAIN is associated in most people's minds with the idea of purity, as something that is clear, bright, and sparkling, and as a matter of fact its function may be considered to be threefold: in the first place a fountain of water is pleasing to the eye; in the second place it cools the air; and in the third place it exercises certain important purifying effects upon the air. The fountains of Trafalgar-square, however, according to our examination possess none of these qualifications; indeed, quite the reverse would appear to be the case. For example, on the eighteenth day of the present month we observed that the temperature of the air in the square averaged 54° F., while the water of the fountains at the same time showed a temperature of over 72°. It seems pretty clear, therefore, that the water of the fountains is relatively speaking, warm and we have noticed on several occasions on a cool evening a cloud of vapour over the surface of the pools such as would be given off by warm water in a cold place. The fountains therefore are not likely to have a cooling effect upon the air. Next it may be observed at the point where the stream of water takes a curve outwards that the water is always of a dirty greenish-yellow colour. The indications so far are that the water is not as clean as it might be. Why it is warm we do not know unless it consists of the exhaust water from a steam-engine, or, as has been suggested, the waste water of some adjoining public baths or laundry. Subsequently we considered that it would be interesting to make a chemical analysis of the water and the results ultimately obtained were as follows: total solid matters, 42·00 grains per gallon; inorganic residue, 35·00 grains per gallon; chlorides, calculated as common salt, 12·70 grains per gallon; total hardness as calcium carbonate, 6·40 grains per gallon; free ammonia, 0·0084 grain per gallon; albuminoid ammonia, 0·098 grain per gallon; nitrates, *nil;* nitrites, traces; and phosphates, distinct traces. On evaporation the water yielded a dirty-looking residue which charred strongly on heating, giving off at the same time a bad smell. Microscopical examination showed pond-water organisms, epithelial scales, and fungus mycelium. The colour of the water was a dirty yellowish-green. The specimen which we obtained on being kept in a closed bottle developed an offensive musty odour and became opalescent in a few days. A water showing such results as these would, of course, be unhesitatingly condemned for drinking purposes. We maintain, however, that it is desirable from a public health point of view that the water of these fountains should be as pure as that of a drinking supply. We have seen it stated, by the way, that there are artesian wells at Trafalgar-square which supply the Houses of Parliament. We hope that the source of this supply is not identical with that of the water used for the fountains in Trafalgar-square or if so that it is not used for drinking purposes by Members of Parliament. The water is both chemically and physically dirty, exhibiting a strong degree of pollution if judged by a drinking-water standard. It is not unreasonable to suggest that the spray blown about by the wind might easily be inhaled by the passers-by with mischievous results. Surely it is not too much to expect that what the great Sir Robert Peel called "the finest site in Europe" should be provided with fountains the water of which is absolutely free from reproach. We have often pointed out that water in its passage through air, as in the case of rain, plays an important function: the air is cooled, cleaned, and freshened. We are certain that nothing of the kind can be effected by the dirty waters of the Trafalgar-square fountains at the present time; on the contrary, the air is more likely to be vitiated by their action.

LUNACY IN SCOTLAND.

THE forty-fifth report of the Commissioners in Lunacy for Scotland, issued in February, 1903, states that on Jan. 1st, 1903, there were in Scotland 16,658 insane persons under the official cognisance of the commissioners. Of these, 2416 were private patients maintained from private sources, 14,191 were maintained by parochial rates, and 51 at the expense of the State. As the total number of lunatics on Jan. 1st, 1902, was 16,288, an increase had taken place during the year 1902 of 370. A review of the statistics from 1858 to 1903 shows that when the Board of Commissioners in Lunacy entered on its functions in 1858 the total number of lunatics officially known to the board was 5824, showing an increase of 10,834 during the subsequent 44 years ending Dec. 31st, 1902. In other words, since 1858 the number of lunatics under the jurisdiction of the board has increased by 186 per cent. The increase of the population during the same period has been 50 per cent. The average annual increase of pauper patients in establishments during the past 10 years has been 300. During the past year the increase was 374, being 74 in excess of the average. In the year 1893 the proportion of pauper lunatics to the population in Scotland was 240 per 100,000. This proportion, however, has been steadily rising since then and stands now at 250 per 100,000. The number of pauper lunatics in private dwellings has increased during the past ten years from 2519 to 2642. The proportion to population of private patients under care in private dwellings has remained unchanged for many years. Among lunatics are included imbecile children in training schools, but the number of the children is the same as in the previous year. The number of private patients admitted to institutions during the year was 548, being ten more than in the preceding year and six more than the average for the quinquennium 1895–99. The number of pauper patients admitted was 3113, being 151 more than the number during the preceding year and 374 more than the average for the quinquennium 1895–99. The number of all patients discharged as recovered from institutions during the year amounted to 1620, or 12·2 per cent. of the average number resident. The deaths during the year amounted to 1201, or 9·1 per cent., as calculated on the same basis. An elaborate inquiry into the extent and distribution of insanity in the various shires and districts of Scotland correlated with the census returns of 1901 shows that the proportion to population of persons of unsound mind varies very greatly, the highest proportion being in Argyll and the lowest in Dumbarton. The ten highest proportions stand in descending order as follow: Argyll, 842 lunatics per 100,000 population; Sutherland, 775; Ross and Cromarty, 767; Nairn, 745; Caithness, 720; Inverness, 705; Orkney, 680; Shetland, 675; Bute, 650; and Perth, 602. A study of the returns shows that at the top of the list stands without a break "the whole Highland and insular region of

Scotland, mainly rural and non-industrial," and at the foot stands "central Scotland, which is mainly urban and which whether urban or not offers the best field for those in search of employment." As the result of elaborate collation and comparison of facts the commissioners conclude that the somewhat startling result is shown that where alcoholic excess and other forms of vice are with good reason supposed to be least common and where life is most free from worry, strain, and excitement insanity is most prevalent (as in the ten districts above mentioned) while, on the other hand, where drink, vicious living, worry, and stress are all at their highest—viz., in the counties of Fife, Ayr, Lanark, Stirling, Renfrew, Linlithgow, and Dumbarton—the prevalence of insanity falls to the lowest point. A closer consideration of the facts and circumstances affecting these two extreme groups tends, however, to raise doubts as to whether the southern group possesses inherently all the advantages in respect to sanity which the bare figures seem to give it, while support is lent to the view that the evil effect of the intermarriage of predisposed persons is to a large extent an important factor in the prevalence of insanity in the northern group.

PRESERVING EGGS WITH SILICATE OF SODA.

MORE than once in these columns we have drawn attention to the excellent method of preserving eggs by means of submerging them in a 10 per cent. solution of silicate of soda or water-glass. Several readers have since written to us asking for further information as regards the practical details of the method. We believe the following plan gives quite satisfactory results. One pound of water-glass (which can be obtained from the pharmacist) should be carefully dissolved in one gallon of cold water. It will take some time to incorporate the treacly silicate with the water but the mixing must be done thoroughly. The solution with the eggs placed in it should be kept in an earthenware glazed jar. The eggs should be packed point downwards and completely submerged. Any loss of the solution by evaporation should be made up by adding a little water from time to time. Should any of the eggs float a common dinner-plate should be sunk below the surface of the fluid so as to rest inverted on the eggs. The shell should be pierced just before the egg is boiled, otherwise the egg might burst. The plan is so simple and effectual, eggs keeping as good as fresh for close upon a year, that there is no reason why it should not be universally adopted, more especially when eggs are plentiful and cheap.

THE CONTROL OF INEBRIATES.

THE recently published report of the Dalrymple Home established by the Homes for Inebriates Association is instructive and on the whole encouraging. From a summary of results obtained since the home was opened 19 years ago it appears that 679 persons have been under treatment during this period, the average term of residence being six and a half months. Of these 679, 241 are stated to be now doing well and 100 to have improved. On the other hand, 203 have not improved, while particulars are wanting as to 78. Nine have become insane, 48 have died, and 83 have been re-admitted. Thus, while we are unable from the data before us to decide how much, if at all, the total of success absolutely exceeds that of failure, the proof, so far as it goes, indicates a margin on the right side. At all events we have the assurance that about a third of the cases treated have resulted in more than transient amelioration. When viewed in its domestic relation the benefit which these figures illustrate is magnified. The advantage to the inebriate, desirable in itself, is a small matter in comparison with the present comfort and the future hope which even his mere absence implies for those of his family circle. In the event of his reformation the gain to all concerned is incalculable. So far the provision made by legislation for the restraint of the drunkard is limited (1) to the case in which he is himself willing for a time to endure the loss of liberty; and (2) to the case in which he has forfeited this by conviction in a court of law. There is, however, another and a much larger class of inebriates who are not controllable on either of these grounds and who are yet undoubtedly and habitually drunken and in whom apparently there exists no inherent remnant of the curative will-power. The right of personal freedom is surely no privilege but a wrong to such persons and through them a wrong to society. It has become practically an obstacle to their recovery by means of that salutary restraint from without which is one of the most trustworthy remedies, if not the only one, revealed to us by experience. It is worth considering whether there should not be applied to the treatment of such cases in this country some system akin to the French *conseil de famille*. There is little likelihood of abuse under such an arrangement, carried out as it would be under supervision of the magistracy.

THE annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be held on July 16th and 17th and not as previously announced. The meeting will be held at 11, Chandos-street, Cavendish-square, London, W.

THE foundation-stone of the Winsley Sanatorium will be laid by Lady Dickson Poynder on Thursday, June 4th, at 3.30 P.M. The nearest railway station to Winsley is Limpley Stoke on the Great Western Railway.

OWING to the great pressure on our space this week caused by the report of the proceedings of the General Medical Council we are compelled to postpone the publication of several important communications.

LEPROSY AND FISH-EATING.

THE discussion on the address by Mr. Jonathan Hutchinson on the results of his recent journey to India for the investigation of leprosy was held at the Medical Graduates' College and Polyclinic, Chenies-street, London, on May 21st.

The chair was taken by Dr. H. RADCLIFFE CROCKER and the proceedings commenced by Mr. JONATHAN HUTCHINSON pointing out that the standing committee on leprosy of the Medical Graduates' College and Polyclinic should institute an inquiry by means of systematic correspondence into the question of the causation of leprosy by eating fish. He thought that if such a correspondence were instituted it would be found that wherever Roman Catholic missionaries were successful there leprosy was abundant. He asked if leprosy was a disease spreading from person to person why it should pick out the Christians in India out of all proportion to the Hindoos. It must be because of the change in the kind of food eaten and that must be the fish.

Mr. M. I. FINUCANE (late of Fiji) stated that in his opinion leprosy might be caused by other agencies than the eating of fish and he instanced the dirt and filth in which the coolies in Fiji lived. He supported Mr. Hutchinson in regard to the insanitary conditions of life that accompanied the conversion of natives to Roman Catholicism. He thought that the standing committee of the Polyclinic on leprosy should take up the matter of the segregation of lepers, for upon that point the Government was continually pressing medical officers concerned for advice and direction.

Dr. H. D. MCCULLOCH (Secunderabad) said that in Cashmere there were two great classes of people—those who lived in the valleys, whose diet consisted of fish, and those who lived a nomadic life on the mountains living chiefly on a vegetable diet. He asserted that it was an almost impossible thing for the mountaineers to procure fish, as

suggested by Mr. Hutchinson, but it was from this class that cases of leprosy came and not from the people who lived in the valleys and ate fish throughout the year.

Dr. P. S. ABRAHAM, after complimenting Mr. Hutchinson on the work he had done, proceeded to give in detail his reasons for dissenting from the conclusions arrived at by Mr. Hutchinson. He produced some cuttings from the daily papers in which it was stated that Mr. Hutchinson had declared that on the whole the commission on leprosy had reported favourably on his fish theory of the causation of leprosy.

Mr. HUTCHINSON stated that what he said was that because the commission on leprosy found patients in the leper asylums who said they had not eaten fish, therefore the commission had reported somewhat unfavourably upon his fish theory, but he still contended that the commission on the whole was favourable to it in spite of its somewhat adverse verdict.

Dr. ABRAHAM expressed his opinion that Mr. Hutchinson ought to put the misunderstanding right in the press because on p. 339 of the report of the commission it was distinctly stated that in the opinion of the commission there was no doubt that the consumption of fish was not the cause of leprosy.

Dr. C. J. S. HANCOCK (Assam) communicated some interesting details concerning the consumption of fish by all classes in Upper Assam.

Dr. C. AFFLECK discussed the question of leprosy in Scotland in the Middle Ages and gave in some detail the opinions of his medical teachers concerning Robert Bruce and other matters. He advised the committee to seek for an elucidation of the question by investigating the fish theory.

Dr. CROCKER said that undoubtedly the whole subject depended upon the demonstration of the lepra bacillus in fish and until that was done he could see but little use in prolonged discussions except in so far as they tended to lead investigators in the direction of seeking for the lepra bacillus.

Mr. HUTCHINSON, in reply, deprecated the contention of Dr. Crocker that to prove his fish theory the bacillus must be demonstrated in the fish, because he thought that many things could be, and were, proved before they were actually demonstrated. In respect to the Cashmere mountaineers he explained that the circumstances were somewhat similar to those noticed in South Africa, where the labourers up country who subsisted on salt fish contracted leprosy, but the fishermen at Cape Town who supplied the fish were practically exempt, the explanation being that they consumed the fish when it was fresh and wholesome.

The meeting then terminated.

THE ASSOCIATION OF CERTIFYING FACTORY SURGEONS.

THE gatherings of the Certifying Surgeons' Association have usually taken place in the Midlands. This year, however, a well-attended dinner was held in London at the Hotel Cecil on May 22nd. Considerable regret was felt at the enforced absence of the Home Secretary who had accepted an invitation to be present, but among the guests of the association were numerous representatives of the Home Office connected with the Factory Department, and Sir Kenelm Digby, Permanent Under Secretary of State for the Home Office, filled the seat that Mr. Akers-Douglas should have occupied. Dr. T. F. Young of Liverpool, President of the association and chairman of the dinner, after the usual loyal toasts had been drunk proposed "The Home Department of His Majesty's Government," and referred in his speech to the progressive nature of the work instituted under, and forwarded by, the Factory Department of the Home Office, making a happy reference to the wealth of a nation consisting in the numbers of its healthy population. He alluded to Dr. B. A. Whitelegge, chief inspector of factories, who was present, as one of the greatest public benefactors whom he could name. In his reply on behalf of the Home Office Sir Kenelm Digby dwelt upon the great and increasing development of the Factory Department and upon the far-reaching effect of the work done throughout the kingdom by the certifying surgeons, not only in populous manufacturing districts but in others where there were few factories and considerable distances had to be traversed by those responsible for the health of the workers in them. Professor C. J. Wright of Leeds proposed the toast of "The Factory Department of the Home Office," coupling with it the name of Dr. Whitelegge which was received with well-deserved enthusiasm. Dr. Whitelegge, in replying, spoke of the enormous growth of the department under his supervision, to the spread of its jurisdiction from land to water, from docks to harbours, and made a good point when he expressed regret that although accidents that took place were recorded no statistics could show the number of accidents prevented. In replying to the toast of his own health, which Dr. Whitelegge had proposed, Dr. Young referred to the difficulty which met the certifying surgeon when he knew that an opinion adverse to the employment of a young person at a factory might mean loss of all power to earn a livelihood. He exhorted his hearers to let their humanity influence them in such cases wherever doubt arose and pointed out that the boy who was unfit owing to physical infirmity for a particular duty for which he had been engaged, might still be found work in some other part of the same factory in different circumstances, if the certifying surgeon would explain to the employers the nature of the work likely to prove injurious to him.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THIS society held its annual meeting at 11, Chandos-street, London, on May 20th, and the opportunity was taken by Mr. Christopher Heath, who occupied the chair, to draw the attention of the profession to some important points in connexion with the advantages offered by the society. After congratulating the members on the excellent financial position of the society Mr. Heath proceeded to explain how much good the society was doing and how much more it could do if its benefits were more generally appreciated by medical men. The best proof of what might be done could be gathered from a study of the voting-paper issued by the Royal Medical Benevolent College for the forty-ninth election of pensioners and foundation scholars. On looking through the list of candidates for the five vacant pensions to see how many of the applicants would have been eligible to receive benefit under the rules of the Society for the Relief of Widows and Orphans of Medical Men, Mr. Heath noticed that there was an application from the widow of a medical man who had practised for nine years in Battersea and Queensland. That widow was 63 years of age, with very limited means, but if her husband had taken advantage of the benefits of the society she would have received immediate assistance, because the fact that her husband had died in Queensland would not have rendered her ineligible for the receipt of relief. Curiously enough, two or three years ago the society had to deal with a very similar case. A lady applied whose husband had died in Australia, leaving her with a large family; happily for the widow, before that gentleman went out to Australia he had become a subscriber to the Society for the Relief of Widows and Orphans of Medical Men and had kept up his subscription. The society granted that lady £50 a year and an allowance for each of the children, the total amount that she received annually from the society being £125. This case certainly served as an excellent example of the benefits that any medical man might secure for his family by joining the society and paying two guineas yearly.

It was worthy of the widest circulation that a life-membership of the society could be secured by the one payment of 20 guineas up to 30 years of age, 25 guineas up to 40 years of age, and 30 guineas after that. It was certainly a matter of regret that in spite of this admirable means of making timely provision for widows and orphans, so few medical men were found availing themselves of this opportunity of discharging a part of their duty towards those depending on them. Mr. Heath referred to the list of widows and orphans in affliction applying to the Royal Medical Benevolent College and pointed out that it was only a sample of the kind of thing that happened every year. The Society for the Relief of Widows and Orphans of Medical Men had no power to make any grant whatsoever except to the widows and children

of those who had been subscribers, but it was only too happy to relieve the wants of the widows and orphans of those gentlemen who had taken the opportunity of becoming members of the society and had fulfilled the conditions required by the regulations. The society was in the possession of the necessary funds and no one entitled to relief was ever sent away because there was no money available. Pecuniary resources were at the disposal of the society in abundance; its funds were large and well invested.

Mr. S. Felce, a vice-president of the society, remarked that for a medical man to say he would not join the society because it did not need assistance and because he thought his wife and children were never likely to want, was an argument that was not borne out by the facts of everyday life, for it was a matter of common knowledge that misfortune might happen to the most prosperous, and no one knew when those near and dear to him might need assistance.

MEDICINE AND THE LAW.

The Dying Declaration.

AT the trial for murder of a man named Bottomley at Liverpool considerable discussion seems to have taken place as to the admissibility of statements made by the woman whose death he had caused. He was charged with killing her by procuring, or attempting to procure, abortion and in these cases, where the woman is not infrequently attended by a medical man before death takes place, this question of statements made by the patient often arises and medical men should be aware of it. In cases of homicide it is the practice to admit testimony as to the dying declarations of the deceased with respect to the cause of his death, it being first shown that such declarations were made under a sense of impending dissolution. It is for the judge to be satisfied that the deceased when making the statement had a "settled hopeless expectation of death" before he admits the evidence. In all cases—that is to say, in other cases as well as in those of homicide—depositions of a deceased witness may be read, but these have to be properly taken in the presence of a magistrate and with the observance of other formalities which need not be gone into. The dying declaration, as it is usually called, is simply the statement of a person who with the expectation of death before him would not be likely to say what was not true. It is right in such a case for anyone present who can do so to make immediately an accurate note of what the deceased said and to include in the note any question which may have evoked the statement thus made. A note should also be taken of anything said by the deceased which bears on the question of his knowledge that he is dying.

The Word of a Medical Man.

The *Times* report of the recent trial of seamen for the murder of their officers on board the *Veronica* contained the following passage: "Yesterday the resumption of the trial was delayed owing to the illness of a juryman. A new juror was eventually sworn and the evidence was read over. There is precedent for procedure of this kind even in a murder trial,..... but the more usual and, indeed, the correct, course appears to be that the illness of the afflicted juror and his incapacity to serve should be proved on oath in open court and not taken for granted on the bare assurance of a doctor." Writing in the *Times* of May 16th Sir Herbert Stephen, clerk of assize for the Northern circuit, emphatically contradicted a statement which is certainly not in accord with the experience of most medical men. Sir Herbert Stephen wrote: "The only purpose of an inquiry by sworn evidence as to the missing juryman's condition is to ascertain whether anyone ought to be made penally responsible for the separation of the jury. There was no reason in this case for any such inquiry." A medical man is sworn to give evidence where an issue is being tried and he then gives evidence like any other witness. There are occasions, however, when no oath is required and the word of a member of a learned and honourable profession is accepted without question. The statement of a barrister is also accepted on many occasions in courts of law, although as a witness he is put upon his oath like anyone else. The authority of Sir Herbert Stephen, who wrote as clerk of assize of the Northern circuit, will be sufficient to satisfy everyone that the correct procedure was adopted on the occasion in question.

Unqualified Practice.

A man named Thomas Dixon was summoned recently before Mr Denman at Marlborough-street Police-court and fined £10 with £10 10*s.* costs, or in default two months' imprisonment, for an infringement of the Medical Acts. It was proved that he had examined the pulse and tongue of a witness (who was a clerk in the office of the solicitor to the Medical Defence Union and had nothing the matter with him), had sold him a bottle of medicine, and on being asked to give a certificate had signed it "Dr. R. Cowen." Mr. R. J. Cowen of 25, Clarges-street, W., stated that the defendant had been his assistant and had been discharged for acting in his absence in the way in which he had. As the only defence seems to have been an appeal in mitigation of punishment to the effect that the defendant had been employed as an assistant to medical men for 18 years, but was "one of the unfortunate ones who had not succeeded in passing his examination," the penalty inflicted does not seem excessive. If the public are to be treated by unfortunate ones who cannot pass their examinations they are at all events entitled to be protected against being misled by any pretence of qualification.

A Judge upon the Sale of Pistols.

At the recent trial of a young man named Platell at the Old Bailey for a murder committed at Blackheath the medical evidence bearing upon the prisoner's mental condition was conclusive and the jury found him guilty but insane at the time of the commission of his act. He appears to have bought a revolver and 50 cartridges at a pawnbroker's shop for 10*s.* 3*d.* and to have proceeded the same night to shoot at, and to wound, a policeman at close range, afterwards shooting at, and killing, an unfortunate man who, joining the hue and cry, sought to apprehend him. A Mrs. Jennings, who had refused to sell the prisoner a revolver earlier in the evening because she believed him to be drunk, was warmly commended by the judge. On the other hand, the pawnbroker who afterwards sold the fatal weapon is reported to have been thus addressed by Mr. Justice Grantham: "In my judgment you ought to be in that dock charged with manslaughter. When a man loads a revolver for another who is drunk and that person goes and shoots another it is a serious question whether the man who loads the revolver is not guilty of manslaughter." This may be the case, and no doubt if the pawnbroker had any reason to believe that his customer was drunk when he asked for the pistol, it is proper that he should be rebuked. At the same time, the mere selling of a revolver for a few shillings to a stranger who may be mad, or a drunkard, or a criminal, is perfectly legal, and so is the act of showing a novice how to load a dangerous weapon. If the law made the whole trade in cheap pistols impossible and only allowed the sale of revolvers to persons able to prove some reasonable claim to possess them many lives would be saved in every year. The Bill at present before Parliament would restrict the sale of pistols to persons producing a 10*s.* gun licence and giving their names and addresses at the time of purchase. Whether this would have affected the case of Platell by preventing the sale to him of the weapon in question depends more upon how much money he had in his pocket than upon anything else. He was of respectable parentage and appearance and under the conditions hitherto existing the issuing to him of a gun licence would have been merely a question of his ability to pay for it.

GENERAL SIR HECTOR MACDONALD MEMORIAL.—A gentleman has intimated that when the subscriptions to the London memorial amount to £4000 he will give a donation of £1000 and yet a further sum in proportion to the total amount subscribed. Dr. Farquhar Matheson, J.P., 11, Soho-square, W., and Mr. William Grant, St. Mildred's House, Poultry, E.C., the honorary treasurers, will be glad to acknowledge all donations.

DEVON AND CORNWALL EAR AND THROAT HOSPITAL, PLYMOUTH.—The annual meeting of the subscribers to this institution was held on May 18th under the presidency of the mayor. The financial statement showed a favourable balance of £20, but there still remains a debt of £1200 on the building. During the year a new ward has been added to the hospital. The medical report stated that 851 patients were treated during 1902, compared with 664 in 1901, and that 222 operations were performed.

Looking Back.

FROM

THE LANCET, *SATURDAY*, MAY 28, 1825.

MORE "HOLE AND CORNER" DOINGS.[1]

Comical as we know Mr. Abernethy to be, we did not expect, after we had *concluded* the publication of his lectures, after we had presented the *last* of them to the world, that he would call upon the Chancellor to prevent our *doing that* which had actually been *done* several weeks previously; but it appears that Mr. Abernethy's notion of law is, that it can alter the past as well as the future.

He may possibly have vanity enough to suppose that we shall *reprint* his lectures. On this point his mind may be perfectly at ease; our pages have been already obscured with his hypothetical nonsense during six tedious months, and when we read the proof of the last paragraph we felt relieved as we formerly stated, of a most tolerable *incubus*.

This renewed attack is one of a series of legal proceedings which the "Hole and Corner" people long ago resolved upon instituting against THE LANCET, with a view of deterring us from discharging our public duty, and with a view of subduing that exulting tone of independence in which we have proclaimed to the world their abominable malpractices. We have hitherto smiled at their impotent efforts, and smile at them still; for really their imbecility renders them the most ludicrous of opponents. We sometime since alluded to a meeting of certain of the lecturers and hospital surgeons, held for the purpose of adopting such measures as should have the effect of *putting down the Lancet*. Our information on this subject was exceedingly loose until Wednesday last, when, having heard it whispered that one or more of those meetings had been held at the Freemasons' Tavern, it struck us that we might, by a little manœuvre, get possession of the secret; knowing how fervently the "Hole and Corner" people worship the molten god, we considered it extremely probably, (as they had met on such a disastrous subject,) that they had forgotten to pay their bill. Now, as the meeting was held on our account, we thought it but right that we should go to the landlord of the tavern—ask how matters stood, and, if unpaid, offer to settle the account.

It is not a little extraordinary that our conjecture was realised. We informed Mr. Cuff's clerk, without any preliminary observation, that we had called to pay the expences of a Meeting of Medical Gentlemen, friends of Mr. Abernethy, which had been held there in December last—"Oh yes, sir, said he, I recollect, one Saturday night in that room."—(Pointing to a room at the bottom of the stairs; a low situation, calculated for *low* company and *low* deeds.)—"The account is not settled, we believe?" "No, it is not." "If you will get it drawn out, as we see you are busy now, we will call and pay it in the morning." The following morning we were punctual; obtained the bill, paid it, and presented the waiters with 2*s* 6*d*, for they had been forgotten too. One of the gentlemen was so affected that he was compelled to have a coach to take him away. The landlord paid the coachman, which was also forgotten. This *Tavern account* of a Meeting of Gentlemen is really so rare—so choice a morsel, that we must present our readers with a faithful transcript of it:—

Mr. STANLEY,

To J. J. Cuff,

1824.		£	s.	d.
Dec. 27.	To room		15	0
	Paid for coach		1	0
			16	0
	Waiters		2	6
May 25.			18	6

Recd for J. J. Cuff,
T. Hoggray.

Here was a jovial meeting! Look at the charges for refreshments! Not a solitary glass of Burgundy or of Mr. Cuff's fine old Port. The only thing inquired for was a preserved peach by Mr. Travers, but when that gentleman had made the lateral incision and found that it was *stoneless*, he rejected it with apparent nausea; however upon its being represented to him, shortly afterwards, that one of the waiters had discovered the stone in an old *musk box*, he became somewhat better, and soon after left the room. Mr. Cuff, we should suppose, from the appearance of this bill, cannot wish to have another Medical Meeting. It was a "Hole and Corner" proceeding to the very letter, for it appears, by the bill, that although it took place at the latter end of December there was neither fire nor candle.

Mr. Green, we understood, ordered the room, but who attended besides that gentleman, Stanley, Travers, Brodie, and Vincent, we cannot say. Mr. Stanley, we expect, will thank us for discharging this funny little bill, and we have no doubt he will feel particularly grateful to us for having given it this publicity, more especially as the cause for which it was incurred is one which does him and his coadjutors so much honour. We ought to have stated, that this meeting was convened by letter, addressed to nearly all the Hospital Surgeons and Lecturers.

Who can *now* doubt that we have been the objects of a conspiracy, and that these repeated law proceedings are systematic attacks, which it is hoped, (vainly enough, God knows,) will ultimately conquer us?

[1] Excerpt from remarks by the Editor of THE LANCET.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 9018 births and 4490 deaths were registered during the week ending May 23rd. The annual rate of mortality in these towns, which had been 17·5, 15·9, and 15·4 per 1000 in the three preceding weeks, rose again to 15·5 per 1000 last week. In London the death-rate was 14·8 per 1000, while it averaged 15·8 per 1000 in the 75 other large towns. The lowest death-rates in these towns were 3·2 in Hastings, 8·5 in East Ham, 8·6 in Hornsey, 9·1 in Handsworth, 9·8 in Walthamstow, in Kings Norton, and in Aston Manor, and 10·0 in Tottenham and in Stockton-on-Tees; the highest rates were 20·2 in Sheffield and in Swansea, 20·3 in Manchester and in Salford, 21·8 in Wigan, 21·9 in West Bromwich, 22·0 in Sunderland, 22·2 in Grimsby, and 24·7 in Huddersfield. The 4490 deaths in these towns last week included 461 which were referred to the principal infectious diseases, against 519, 457, and 428 in the three preceding weeks; of these 461 deaths 146 resulted from measles, 102 from whooping-cough, 66 from diarrhœa, 57 from scarlet fever, 46 from diphtheria, 32 from "fever" (principally enteric), and 12 from small-pox. No death from any of these diseases was registered last week in Hornsey, Hastings, Bournemouth, Reading, Devonport, Burton-on-Trent, Handsworth, Kings Norton, Wallasey, Warrington, Bury, Barrow-in-Furness, or Tynemouth; while they caused the highest death-rates in Great Yarmouth, Hanley, West Bromwich, Smethwick, Oldham, Sheffield, Middlesbrough, Merthyr Tydfil, and Swansea. The greatest proportional mortality from measles occurred in Wolverhampton, West Bromwich, Salford, Sheffield, Middlesbrough, and Swansea; from scarlet fever in Great Yarmouth, Huddersfield, and Merthyr Tydfil; from diphtheria in Hanley; and from whooping-cough in West Ham, Smethwick, Grimsby, Oldham, Sheffield, and Rotherham. The mortality from "fever" showed no marked excess in any of the large towns. Of the 12 fatal cases of small-pox registered in these towns last week six belonged to Liverpool and one each to Leicester, Oldham, Burnley, Bradford, Leeds, and Gateshead. The number of small-pox patients in the Metropolitan Asylums hospitals, which had been 60 at the end of each of the two preceding weeks, had increased to 64 at the end of last week; 19 new cases were admitted during the week, against 12, 17, and seven in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday, May 23rd, was 1759, against numbers increasing from 1662 to 1756 on the five preceding Saturdays; 234 new cases were admitted during the week, against 235, 229, and 236 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London,

which had been 283, 260, and 225 in the three preceding weeks, further declined last week to 182, and were 34 below the number in the corresponding period of last year. The causes of 48, or 1·1 per cent., of the deaths in the 76 large towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Bolton, Salford, Newcastle-on-Tyne, and in 44 other smaller towns; the largest proportions of uncertified deaths were registered in Hanley, Smethwick, Barrow-in-Furness, Sheffield, and South Shields.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 19·2, 17·9, and 18·0 per 1000 in the three preceding weeks, declined again to 17·2 per 1000 during the week ending May 23rd, but showed an excess of 1·7 per 1000 over the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 13·4 in Dundee and 14·6 in Edinburgh to 18·6 in Glasgow and in Perth and 23·3 in Greenock. The 563 deaths in these towns included 22 which were referred to whooping-cough, 16 to diarrhœa, six to measles, three to diphtheria, three to "fever," and one to scarlet fever, but not one to small-pox. In all, 51 deaths resulted from these principal infectious diseases last week, against 57, 57, and 68 in the three preceding weeks. These 51 deaths were equal to an annual rate of 1·6 per 1000, which corresponded with the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of whooping-cough, which had been 32, 26, and 25 in the three preceding weeks, further declined last week to 22, of which 13 occurred in Glasgow, three in Edinburgh, three in Greenock, and two in Leith. The deaths from diarrhœa, which had been 11 and 12 in the two preceding weeks, further rose to 16 last week, and included 10 in Glasgow, two in Dundee, and two in Aberdeen. The fatal cases of measles, which had been seven, eight, and 16 in the three preceding weeks, declined again last week to six, of which three were registered in Glasgow and two in Edinburgh. The deaths from diphtheria, which had been five and six in the two preceding weeks, declined again to three last week and all occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 125, 104, and 101 in the three preceding weeks, increased to 102 last week, and were 54 below the number in the corresponding period of last year. The causes of 13, or more than 2 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 25·7, 25·3, and 22·3 per 1000 in the three preceding weeks, rose again to 22·4 per 1000 during the week ending May 23rd. During the past four weeks the death-rate has averaged 23·9 per 1000, the rates during the same period being 15·6 in London and 16·4 in Edinburgh. The 163 deaths of persons belonging to Dublin registered during the week under notice were within one of the number in the preceding week and included 11 which were referred to the principal infectious diseases, against 15 in each of the two preceding weeks; of these four resulted from small-pox, two from "fever," two from diarrhœa, and one each from measles, scarlet fever, and whooping-cough, but not one from diphtheria. These 11 deaths were equal to an annual rate of 1·5 per 1000, the death-rates last week from the same diseases being 1·7 in London and 1·0 in Edinburgh. The fatal cases of small-pox, which had been four in each of the two preceding weeks, were again four last week. The mortality from both "fever" and diarrhœa was slightly in excess of that recorded in the preceding week, while the deaths from measles and whooping-cough showed a decline. The 163 deaths in Dublin last week included 27 of children under one year of age and 41 of persons aged 60 years and upwards; the deaths both among infants and elderly persons last week were slightly fewer than in the preceding week. Six inquest cases and seven deaths from violence were registered, and 59, or more than a third, of the deaths occurred in public institutions. The causes of seven, or more than 4 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Staff Surgeons: A. H. L. Cox to the *Pembroke* for the *Northumberland*. Surgeons: A. W. Iredell, W. K. D. Breton, F. C. Robinson, C. H. Dawe, C. E. C. Child, R. Thompson, W. A. Illingworth, M. T. Male, R. Kennedy, J. H. L. Page, J. J. H. Rooney, E. S. Wilkinson, W. E. Ormsby, E. A. G. Wilkinson, and A. F. Fleming to the *Duke of Wellington* for Haslar Hospital. Civil Practitioners: S. Copley to be Surgeon and Agent at Boyne and Clogher Head, and G. Byres at Belhelvie, N.B.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel G. D. Bourke to be Colonel, vice W. J. Fawcett, promoted (dated April 1st, 1903); Lieutenant-Colonel E. V. A. Phipps retires on retired pay (dated May 27th, 1903).

Surgeon-General J. A. Clery, C.B., Principal Medical Officer at Pretoria, has arrived home.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Major R. S. Smith having resigned his appointment in the Volunteers ceases to be an officer in the Army Medical Reserve of Officers.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

The Manchester Companies: Lieutenant W. M. Steinthal to be Captain. Dated May 27th, 1903.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

Devon: Lieutenant H. W. Webber to be Captain. Dated May 27th, 1903.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Captain A. R. H. Oakley resigns his commission. Dated May 27th, 1903.

The promotion of Lieutenant H. E. Dalby to the rank of Captain, which was announced in the *London Gazette*, dated May 5th, 1903, bears date March 28th, 1903, and not as therein stated.

IMPERIAL YEOMANRY.

Gloucestershire (Royal Gloucestershire Hussars): Surgeon-Captain H. Bramwell to be Surgeon-Major. Dated May 20th, 1903. Lothians and Berwickshire: Surgeon-Major T. F. S. Caverhill to be Surgeon-Lieutenant-Colonel. Dated May 20th, 1903. Pembroke: Surgeon-Lieutenant-Colonel G. R. T. Phillips resigns his commission and is granted the honorary rank of Surgeon-Colonel, with permission to wear the uniform of the regiment on retirement. Dated May 20th, 1903. Worcestershire (the Queen's Own Worcestershire Hussars): Surgeon-Lieutenant J. H. Beilby to be Surgeon-Captain. Dated May 20th, 1903.

VOLUNTEER CORPS.

Royal Garrison Artillery (Volunteers): 2nd Sussex: Surgeon-Captain E. Downes resigns his commission. Dated May 20th, 1903. 4th West Riding of Yorkshire: Surgeon-Lieutenant P. E. Barber to be Surgeon-Captain. Dated April 25th, 1903.

Royal Engineers (Volunteers): 2nd Cheshire (Railway): Surgeon-Lieutenant E. Gray to be Surgeon-Captain. Dated May 27th, 1903.

Rifle: The Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment): Captain J. H. A. Laing resigns his commission and is appointed Surgeon-Captain, with precedence next above Surgeon-Captain J. A. Clark (dated August 29th, 1894); Surgeon-Lieutenant S. Hillier to be Surgeon-Captain (dated May 20th, 1903). 3rd Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant J. P. Pendlebury resigns his commission. Dated May 27th, 1903. 3rd Volunteer Battalion the Lincolnshire Regiment: Surgeon-Lieutenant J. Bruce to be Surgeon-Captain. Dated April 25th, 1903.

INFECTED ARMY BLANKETS.

The report that a large quantity of soiled and infected army blankets had been brought from South Africa to this country and widely distributed and that an outbreak of enteric fever on board the reformatory ship *Cornwall* had been directly traceable to this cause was well calculated to give rise to the consternation with which the news was received. It certainly seems inconceivable that such an occurrence could have taken place, but the facts appear to leave no doubt on the subject. It calls

for very searching investigation, for it is clear that there have been very reprehensible negligence and blundering somewhere. Consequent upon the highly commendable action taken by the port sanitary officer of the corporation of the City of London in connexion with the outbreak on the training-ship lying off Purfleet, the Government and sanitary authorities were promptly informed with a view to the necessary measures being taken. The subject has excited great attention not unmixed with a natural feeling of indignation. Both Mr. Long and Mr. Brodrick have made statements in Parliament in regard to it and have promised full inquiry. In the face of what the War Minister said as to the existing regulations about infected bedding and materials, supplemented by the special orders issued to South Africa in regard to this matter—to say nothing of what is, or should be, common knowledge in this respect—there seems to have been an inexplicable amount of gross negligence and disregard of ordinary precautions for which somebody should be held responsible. Who was it that ordered the sale of these blankets?

Correspondence.

"Audi alteram partem."

ACUTE EPENDYMITIS.

To the Editors of THE LANCET.

SIRS,—Having read the interesting paper by Dr. J. A. Coutts on Acute Ependymitis in an Infant in THE LANCET of April 25th, p. 1163, it has occurred to me that brief notes of a case somewhat similar in character may be of value. The case was briefly as follows. A child, aged three years, was admitted into the Bristol Royal Infirmary under the care of Dr. J. E. Shaw, with a history of having been attacked the same evening with severe vomiting. On admission the child was cyanosed, the respirations were 70, the pulse was 172 to the minute, and the temperature was 104° F. On the following day there were twitchings of the right arm, internal strabismus of the right eye developed, and double optic neuritis was found to be present. The child died the same evening. At the necropsy the brain externally appeared to be perfectly healthy and no trace of exudation could be seen over the vertex, at the base, in the Sylvian fissures, or elsewhere. On cutting across the cerebral hemispheres, however, the walls of the lateral ventricles were seen to be in the diffluent condition not uncommonly present in meningitis. The only firm portion of the walls of these cavities, as is so commonly the case, was the basal ganglia. In spite of this condition of the walls of the ventricles the choroid plexuses and velum interpositum to the naked eye presented nothing abnormal and the ventricular fluid was only slightly turbid. Dr. J. O. Symes took cultures from the fluid of the lateral ventricles and found Friedländer's diplobacillus. Portions of the basal ganglia were taken for microscopic examination, but the sections were not cut by myself, and unfortunately the ependyma became detached and lost before the sections were made. In spite of the softened character of the greater part of the walls of the lateral ventricles microscopical examination of the basal ganglia showed nothing especially noteworthy. It should be added that the posterior half of the upper lobe of the right lung showed consolidation of typical lobar type. The same bacillus was obtained from the consolidated lung as from the fluid in the cerebral ventricles. The course of this case was very much more rapid than the case of Dr. Coutts but resembled it in the sudden onset in which vomiting was a marked feature and in the presence of convergent strabismus. I am, Sirs, yours faithfully,

Clifton, May 18th, 1903. THEODORE FISHER.

SOUTH AFRICAN CIVIL SURGEONS' DINNER.

To the Editors of THE LANCET.

SIRS,—May we call attention through the columns of THE LANCET to the above dinner on June 5th at the Hotel Cecil at 7.30 P.M.? Owing to the difficulty of obtaining correct addresses of many of the civil surgeons we have been unable to communicate with all those who have served in South Africa. Over 800 cards of invitation have been sent out and some 50 returned as "Gone away," so we take this opportunity of endeavouring to catch the eyes of those who have not received cards. Sir William Thomson, C.B., will preside. Guests may be invited and miniature medals and decorations will be worn.

We are, Sirs, yours faithfully,
F. E. FREMANTLE,
C. G. WATSON,
} Honorary Secretaries.

44, Welbeck-street, W., May 25th, 1903.

THE TREATMENT OF CONICAL CORNEA.

To the Editors of THE LANCET.

SIRS,—May I be allowed to thank Sir Anderson Critchett for his letter which appears in THE LANCET of May 23rd, p. 1477, in which he unreservedly admits the claim I made in my former letter on the above subject? I should also like to say as regards his method of "two distinct zones" that I shall certainly be disposed to give it a trial when opportunity arises in a suitable case. I must add, however, that later experience has tended to show me that operation can be avoided in many cases by a suitable pair of glasses combined with general treatment.

I am, Sirs, yours faithfully,

Liverpool, May 25th, 1903. RICHARD WILLIAMS.

ASEPTIC AND ANTISEPTIC SURGERY.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 21st, p. 837, is a letter by Mr. A. Webb Jones commenting on an address by Mr. W. Watson Cheyne on Aseptic and Antiseptic Surgery in which Mr. Cheyne says that one trained solely in aseptic methods is less liable to adapt himself to his surroundings once he has to practise surgery far from the polished walls of a modern operating theatre. My experience has been of a similar kind to that of Mr. Jones. I have been engaged in operative work in the West Indies for the past eight years, and my results, especially in abdominal surgery, have been very encouraging. I am impressed that it is not inability in adapting oneself to the surroundings, but the blame attached to surroundings is due to the recklessness of the ordinary general practitioner in attempting surgery and instead of attributing the bad results to lack of operative skill and incorrectness in surgical diagnosis and surgical technique, censuring the surroundings, &c.

I am convinced from the results that I have obtained that the surroundings have little to do with the results of the operation. Of course an operator always tries to obtain the best hygienic surroundings possible. Two of my recent cases go to prove what I say about surroundings. The first case was that of a woman, aged 65 years, the diagnosis being malignant disease of the cervix uteri. The patient resides in a small house in a densely populated village and to improve matters a cooper's shop adjoins the yard of the house. On March 5th, 1903, I removed the uterus, both of the ovaries, tubes, &c., and the upper part of the vagina by the abdominal route. The patient has done well, the wound healing by first intention and the stitches were removed on the tenth day. The second case was that of a man, aged 40 years, the subject of appendicitis, who resides in another densely populated village. I operated upon him on April 5th, 1903, at his own house—a small room 12 feet by eight feet. The appendix vermiform was bent upon itself and very adherent; the tip of the appendix was alongside the cæcal origin of the appendix. This case did well; all the stitches were removed on the seventh day, the wound healing by first intention. The patient is up and about

I have had several such cases and I feel the more convinced that it is the man and his methods that succeed in surgery and the surroundings should never be blamed. All of my cases are prepared for operation as though they were in the most up-to date equipped hospital. My instruments are boiled in soda and carbolic solution for one hour. The dressings, gauzes, aprons, towels, &c., are sterilised in a Schimmelbush steriliser under a steam pressure of ten pounds for one hour; 1 in 20 carbolic solution is used (Bowdler and Richerdike carbolic). Distilled water is easily obtained from our ice factory. This I boil and filter. The cases are nursed by trained nurses and I consider that the surroundings play practically no part in the surgical operation, provided the methods are

perfect. The windows are all open during the operation and I have never had any sepsis that I could attribute to the surroundings. I see to the preparing of the patient as to the cleaning of the site for operation and the carbolic compress. I sterilise my own gut, instruments, dressing, &c., and last, but not least, I always dress my cases myself and check the temperature taken by the nurse, and I feel always quite convinced that should anything occur after I have sealed up an abdomen such as sepsis, it would have taken place in the most up-to-date glazed-tiled hospital ward.

I am, Sirs, yours faithfully,

FREDERICK DEANE, F.R.C.S. Edin.

THE SURGEON AND THE CARPENTER.

To the Editors of THE LANCET.

SIRS,—I for one admire that surgeon who, according to Sir W. H. Bennett, "considers himself nothing much better than a good carpenter." For I understand him to signify, in slightly allegorical terms, that his chief concern is towards the attainment of perfect manual dexterity and a perfect knowledge of normal and pathological anatomy. He does not, as I interpret, aspire to proficiency in the understanding of the human organism as a whole, but rather, when he operates, is content to regard his task as a carpenter might, who cuts and planes and drives his nails and screws all with studied indifference to the feelings of surrounding structures, except perhaps—and even these are, I understand, not invariably exempt—when they happen to be gas-pipes or water-pipes or telephone wires. It is the success of the operation and not the general welfare of the patient's whole body that is paramount to him. And I, for my part, admire the surgeon who can thus concentrate his mind upon the part and faithfully shut out any disturbing considerations concerning the result to the whole.

But, Sirs, the whole—the coöperative body and spirit—must surely need an advocate, and some proved and disinterested advocate too, skilled in the consideration of the dangers and drawbacks as well as of the necessities and advisability of recourse to human carpentry. If the surgeon is to be "nothing much better than a good carpenter," surely, at any rate where main timbers may by any possibility be involved, some architect or overseer is needful, someone specially skilled in assessing the damages and estimating the practicability and expenses of the repairs. For how often, in his anxiety to make his mark, is the present-day surgeon led to interfere with parts that do not in reality seriously inconvenience the whole? How often are parts rudely interfered with when they are no more than temporarily deranged and would spontaneously return to their normal conditions if only granted a little grace? How often when the arms of death have already unerringly embraced the whole will the surgeon, with worse than blind enthusiasm, embark in extensive predoomed endeavours to rescue the part? The temper of the surgeon of the day appears to be towards challenging the right of physicians to criticise the results of surgery and indignantly resenting any interference at their hands or from anyone—and I fancy Sir W. H. Bennett, surgeon though he be, will not in all quarters escape condemnation for what he has ventured to tell us—who pleads for rational moderation in the matter of operations.

So it is that we come to read—and this has become a favourite topic with the lay press—of all the enormous increase of operative procedures. Sir W. H. Bennett's experience, from which he so admirably quotes, has probably been largely gleaned in the metropolis. Had he the benefit of having watched the careers of operating general practitioners in the provinces I have no doubt that his remarks would have been even more severe than they were. There are not a few surgeons among us who appear never to emerge from Sir W. H. Bennett's "first stage," but who as an alternative for the later ones become very proficient in the art of extricating themselves from difficult positions as they arise. And at present they undoubtedly have the public on their side and in a mood which condones failure with extraordinary readiness.

But it is my serious belief that Sir W. H. Bennett will be proved by time to be a true prophet when he says that "ere many decades have passed away the operating surgeon will be a far less imposing figure than he now is," and I venture in addition this warning, that popular estimation is a treacherous helm and one that is apt to cause its ship to veer widely. And as the public to-day undoubtedly suffers from an excessive antipathy to venesection, so the day may come when we shall see the present excess of all-round surgical interference replaced by an undue and indiscriminate distrust of it, bred of retaliation in the minds of a disabused laity.

I am, Sirs, yours faithfully,

EDGAR TREVITHICK, M.D. Cantab.

Cheltenham, May 26th, 1903.

ASPECTS OF LIFE ASSURANCE.

To the Editors of THE LANCET.

SIRS,—As one much interested in life assurance I venture to answer the letter of "N. M. R." which appeared in THE LANCET of May 23rd, p. 1478. In the first place I believe that I am correct in stating that it is the custom of all offices in cases of suicide to pay if the policy has been assigned; secondly, many offices have a clause in the policy which makes it indisputable after the payment of a certain number of premiums, usually five; and lastly I doubt whether any office would dispute payment in the event of death by suicide, especially if there were any medical evidence available to show that the deceased was mentally in a condition of unstable equilibrium at the time that the act was committed.

As to whether it is desirable that payment should be made in the event of suicide, assigned policies alone excepted, is another question. It may be argued with much force that the fear of leaving his family unprovided for may have a deterrent effect on the would-be suicide; remove this fear by the knowledge that his assurance money will be available for the support of his family and you do away with the last check on his rash deed. Definite information as to the custom of the various offices in respect to claims due to suicide is much to be desired.

I am, Sirs, yours faithfully,

Wimpole-street, May 25th, 1903. F. DE HAVILLAND HALL.

To the Editors of THE LANCET.

SIRS,—The cases of suicide referred to by your correspondent "N. M. R." in THE LANCET of May 23rd, p. 1478. would be fully secured by the conditions of insurance which hold at the office with which I am connected and I believe at most of the first-class offices—viz., (1) that after the completion of a full year's insurance death from suicide is accepted as a claim as from any other cause; and (2) the cases in which a policy is taken as security in the course of business death by suicide at any time does not affect the validity of insurance.

I am, Sirs, yours faithfully,

May 22nd, 1903. C. M. G.

A QUERY IN EMBRYOLOGY.

To the Editors of THE LANCET.

SIRS,—I was particularly interested in "Oxon's" letter in THE LANCET of May 16th as I witnessed an almost identical experience in the canine race which may be worth recording.

The facts relate to kangaroo hounds, a breed of dogs well known in Australia; the puppies exist, as a rule, more on account of the deeds of their parents than because of any purity of descent, consequently the characteristics of the hounds vary in different districts, but generally they partake more or less of those of a greyhound, and this applies particularly to the two hounds of which I write. I have no record of dates and the occurrence took place at least seven years ago, but my memory is quite clear as to the main facts. On a certain Friday I took a white and blue bitch to be lined by a brindled dog and they were shut up together from the Friday night till the following Monday afternoon, the owner of the dog being quite clear that service was duly performed more than once and for the first time on the Friday evening. I removed the bitch on the Monday and on the way home met a friend who was followed in the distance by a sheep dog; my bitch, on ahead, met the sheep dog and though I galloped up was too late to prevent connexion. In due time (though I did not note the exact number of days) a batch of seven puppies arrived and they were a very disappointing lot. However, my men insisted that mixed litters did occur (? do they), and we picked out the three most likely-looking pups, two of which lived to maturity and proved to be undoubtedly sheep dog crosses; they had semi-rough coats with a short feather on the tail

and barked in the chase. I know that the brindled kangaroo dog was potent because he was not only the father of many dogs in the district but two of my bitches had pups to him the following year. The kangaroo dog was an oldish dog at the time, probably six or seven years old; the sheep dog, on the other hand, was between eighteen months and two years old. The bitch was about three years old. The questions arising are:—1. How long will spermatozoa live in utero? 2. Were the ova fertilised before connexion with the sheep dog? 3. Are spermatozoa from an oldish or debilitated animal so much less active than those from a younger one that they take several days to fertilise an ovum? 4. Can the male elements be replaced in a fertilised ovum several days after fertilisation? I do not believe in maternal impression and it certainly would not account for the barking in chase.

I am, Sirs, yours faithfully,

May 19th, 1903. B.Sc.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Unhealthy Military Stations.—The Plague Epidemic.—The Excessive Heat.—The Continued Famine.—The Improvement Scheme for Calcutta.

FROM time to time various military stations in India have been reported upon as exceptionally unhealthy and attention has been drawn to the great loss of service as well as of lives entailed thereby. There is less excuse in these days of railways and rapid transit for their maintenance and so-called military considerations have not now the same weight that they formerly had. I would draw further notice to the excessive sickness at Fort Dufferin from malaria, to the high mortality from dysentery in Barrackpore, and to the high rates for the constantly sick in Delhi, Ferozepore, Mean Meer, Nasirabad, Jhansi, Jubbulpore, and Pallavaram. The chief cause of sickness in nearly all these places is malaria, but the death-rate for all causes in some of them is enormous. There is a rumour that Barrackpore is to be given up as a military station and the troops transferred to Dum-Dum.

The plague returns issued from Simla show a reduction in the number of deaths as compared with the previous week, but the total is still very high, being 28,146. The figures returned by the various localities are as follows: Punjab, 17,068 deaths; United Provinces, 3139; Bombay Presidency, 3357; Bengal, 1863; Bombay city, 1146; Karachi, 197; Madras Presidency, 42; Calcutta, 434; Central Provinces, 221; and Hyderabad State, 423. The above figures show that the disease is raging with great virulence in Karachi and in Bombay city, but later returns show a marked improvement in Calcutta.

During the past fortnight the heat in many parts of India has been intense. In Calcutta the shade thermometer recorded 109° F., in Jessore 108°, in Midnapore 111°, and in Berhampore 114°. There are still people who believe in the deterrent effect of a high atmospheric temperature upon the spread of plague notwithstanding that the disease has developed in Karachi, the Punjab, and Calcutta almost every year with the hot dry weather of the months of March, April, and May.

Famine is still existent in India. In the Central Provinces the numbers under relief are increasing and the total is now 62,051, of whom 45,559 are on relief works.

The great improvement scheme for Calcutta is threatened with comparative uselessness, as beyond the making of new roads there is no provision for other improvements. All available means are likely to be swallowed up on this limited programme and the bustees and by-lanes and gullies, surface drainage, and privies will be left to be dealt with in the ordinary course. The great cry now is that no provision is being made for the large population displaced by the activities of the plague department. There is the same wail in Bombay. Thousands have been rendered homeless and the result has been that the neighbouring quarters to those demolished have become still more overcrowded. It may be said to be an aphorism of modern sanitation as applied to great cities that construction must go hand-in-hand with destruction. An attempt has been made to carry this out in Bombay but in a degree wholly incommensurate with the population displaced. In Calcutta nothing has been done at all.

May 9th.

THE SECOND INTERNATIONAL CONGRESS OF THE MEDICAL PRESS.

(FROM OUR SPECIAL CORRESPONDENT.)

THE SECOND DAY.

Madrid, May 10th.

ON the Wednesday (April 22nd) morning it was thought that we should reach the real business that had brought us together—namely, the vote upon, and the definite acceptance of, the statutes of the International Association of the Medical Press. A strong desire was, however, expressed to obtain some manifestation of opinion in regard to the questions discussed the previous day and this in spite of the fact that the Congress was not in a position to vote, for it had not as yet decided on the method of voting. But it was nevertheless maintained that it would be time enough to discuss the constitution of the association in the afternoon while the Congress might express its opinion in the morning on some of the general questions. Such expression of opinion would not have any binding effect, it would not be a "legislative" act but merely a manifestation of opinion of a platonic description. This seemed to be somewhat illogical, for if the Congress had the power to vote a constitution, which is certainly a serious and anything but a platonic matter, its other resolutions should have equal force. But then the constitution by establishing the vote by nationalities would certainly render the vote of the congress far more representative than by the mere raising of hands. Therefore the general discussion was resumed and Dr. BLONDEL proposed that the Congress should not consider as medical journals publications that only reported the meetings of societies. Dr. VIDAL agreed, saying that in the absence of some such rule a phonograph would suffice and the owner of the phonograph would call himself a journalist.

Dr. ASCOLI (Italy), like Dr. POSNER (Berlin), thought that such reports of meetings of societies were useful but to constitute a journal other matter should be published. Even if medical men grouped themselves together so as to produce a journal collectively, and if this, in the course of evolution, tended to benefit science, they would not complain even though it were qualified as medical socialism.

Dr. FRANK POPE (Leicester) asked for a more distinct definition, otherwise such a resolution might be taken to exclude the *British Medical Journal*. This question caused some amusement and elicited complimentary remarks acknowledging that the *British Medical Journal* was a journal and contained all that a journal was expected to contain, apart from being the organ of the British Medical Association. Dr. Pope then urged that each section should be left to decide what might legitimately be considered as a journal.

Dr. SUAREZ DE MENDOZA (Paris) inquired what was to be done with the bulletin of the French Academy of Medicine, but in spite of this question a motion to the effect that periodicals which only published the record of the proceedings of societies should not be considered as journals was unanimously approved.

The Congress now discussed the question of gratuitous papers. Some French firms publish, it appears, what purport to be medical journals in the Spanish language and send these papers gratuitously to Spanish medical men. Of course, the object is to promote the sale in Spain of French proprietary drugs and remedies.

Dr. POSNER said that this was a serious matter, for undoubtedly some of these papers were very well written and the writers were well paid for their articles. In Germany these papers went a step further. They assumed the cloak of philanthropy and collected and distributed funds for the relief of the widows and children of medical men. These papers circulated all over Germany. There was one which, while calling itself a medical journal, devoted most of its pages to questions concerning dental instruments.

Dr. MENDOZA said that gratuitous papers could only be issued for the sake of selling drugs or instruments, therefore they were not journals but trade circulars. Nevertheless, they contained good matter—notably the publication issued by Messrs. Faillière of Paris.

Dr. ULECIA Y CARDONA, while declaring that the evil did not exist in Spain, admitted that it was likely to spread. They might carry condemnatory resolutions but as soon as

their opinions were known the dealers and manufacturers would so disguise themselves as to escape censure. They could secure the services of medical men and pay them well. Could they boycott medical men who accepted such payment and were there not many medical men who would set such ostracism at defiance?

Dr. POPE remarked that this sort of thing also existed in England but that the greater number of such publications were sent across the Atlantic or to Germany. There were papers that were gratuitous or nearly so, but the *bonâ-fide* nature of a journal could only be judged on the spot. The national associations must exclude unworthy prints and the action of the national associations must be supported and sustained by the International Association.

Dr. TOTIMO divided the papers into two groups, those published to diffuse science and those which only utilised science as a means of selling goods. The first category alone should be admitted.

Here Mr. ADOLPHE SMITH intervened in the discussion to remind the Congress that at the Monaco Conference, after careful consideration, it was decided that the association was to be representative exclusively of the scientific and literary side of journalism. The commercial side was absolutely excluded. This rule had been strictly observed by the Association of the British Medical Press. Its members were admitted as editors or contributors to medical journals and not as proprietors or business managers of those papers. The most effective means of dealing with the evils mentioned was to maintain a high standard of journalism and if this was properly done the sham journals would soon disappear.

Dr. TOTEDO agreed and said that all papers were dual concerns. There were the scientific side and the business side, but the association was created solely for the scientific side. He did not think that medical men should take in papers published by manufacturers and such papers should not be admitted in the society.

Dr. CALATRAVENO urged that no industrial paper should be admitted, that no exchange with them should be made, and that medical men who wrote for them should not be considered as fellow professionals.

Dr. MENDOZA rose to modify the very condemnatory tone that was being adopted and recalled a Spanish proverb. If a poor man took too much alcohol everyone said he was drunk, but if the man was rich then it was said that he was only a little cheerful. Where was the line to be drawn? Nearly all the papers published advertisements if they could get them. A member of the French Medical Press Association wrote for the paper published by Messrs. Faillière and they were very good articles. Should they not recognise good scientific material wherever they found it without looking too closely into the sources whence the money was derived to pay for its publication?

At this stage the discussion dropped and the Congress adjourned for lunch.

On meeting again the Congress at last grappled with the real business, and as now we should have to vote, and to vote seriously, we must begin at the end by taking Article XII. first, as this defined the method of voting. Dr. CORTEZO, who occupied the chair, called upon Mr. Adolphe Smith to explain. There was no difficulty in demonstrating that the vote must be by nationality and also that some difference must be made between nationalities. But it was proposed to add a definition of small nationalities to the Monaco text, which now ran thus: "At the general assemblies [congresses] the votes will be by nationality."

So as to give a voice to the minority within each nationality five votes shall be given to each large nationality and three votes to the others. For the present those shall be considered as large nationalities whose populations exceed 10,000,000.

What was not so clearly understood was the manner of recording the vote. Mr. Adolphe Smith endeavoured to explain that it was merely a matter of simple arithmetic. Every nationality must appoint its teller and the vote must be put separately to each nationality, the teller apportioning the vote of his nation according to the division of opinion that might occur; thus, if a small nationality had 12 delegates present and eight voted for and four against a motion, the three votes of that nationality would be recorded as two for and one against. If a delegation could not be divided exactly by its three or five votes the nearest possible approximation must be given. After a few questions had been put and answered the motion as given above was carried unanimously, and thus this really important innovation in the manner of organising international congresses which had been approved at the Monaco Conference was now definitely confirmed and sanctioned by the Madrid Congress. The other rules relating to the general assemblies of congresses of the International Association of the Medical Press were carried with hardly any alteration whatsoever.

Article I., on which it had been anticipated that an amendment would be moved, was now taken in hand. It was explained that in the French national association only journals were represented, that in Germany one journal sent several representatives, and that in Spain journals of kindred professions were admitted. As customs differed so widely it was necessary to leave each country to decide for itself as to who should be admitted, but the question was now raised. The amendment proposed by Dr. MENDOZA was that the individual should have the right to appeal to the Congress as a whole against the decision of his own nationality. This demand was based on the belief that in France persons had been condemned without being heard or possessing any sort of right of appeal.

Dr. DEJACE (Belgium) maintained that the Congress could not do better than, or as well as, the nationality concerned, where alone the necessary information could be obtained.

Dr. BLONDEL followed, giving chapter and verse concerning the incident alluded to as occurring in France. He showed that there had been an investigation and that there was a right of appeal and that full reparation had been made for whatever error had been committed. In the face of this announcement Dr. MENDOZA withdrew his amendment and Article I. of the statutes was carried unanimously. The International Association of the Medical Press, therefore, is to consist of journals or journalists approved of, or elected by, their respective national associations of the medical press. Article II., that copyright is to be respected and an international subscription paid, was carried, but Paragraph 1 of Article III. gave rise to a very lengthy discussion. The article was carried unanimously when the disputed sentence was removed so as to be put as a separate article and question. The question was in regard to clinical or university lectures, whether the professor could retain the copyright of the same. In Spain the law was in favour of the professor, but it was against him in France.

Dr. POSNER said that there was an abuse. In Austria papers were published and kept alive by students who went and took notes when some celebrity delivered a lecture and then published these notes in such a manner that it seemed as if the professor in question had written a special article for the paper. The professor, as a matter of fact, knew nothing about it, and such trading on a well-known name should not be countenanced.

Dr. POPE said that lectures delivered in great faculties were taken down in shorthand and published. It was the business of a journal to do this well and promptly, as a matter of reporting.

Dr. DEJACE urged that the professors were paid by the Government and what they said was said for the public. When necessary the journalist paid to enter and he had a right to take notes and to do what he chose with what he heard. The association which they were founding was an association of journals and journalists, not of professors and lecturers.

Dr. POSNER objected that in jurisprudence the property of the lecturer was respected.

Dr. CORTEZO, from the chair, said that they had voted against such proprietary rights at Monaco. They were here creating frontiers and the press would find it very difficult to feed itself. Medicine had its humanitarian side and all that tended to spread useful knowledge should be encouraged.

After some further remarks from one or two delegates the matter was put to the vote and there now occurred a good opportunity of testing the new system of voting, because it so happened that one nation, France, was very divided in its opinions on the question. The rule proposed was:

That lectures cannot be published without the sanction of the professors.

The vote was as follows: Germany, 5 for; Belgium, 3 against. Now came the turn of France and the French vote was 3 for and 2 against. Then followed Spain, 5 against; England, with only two delegates present, voted 5 against—thus the two British votes were as influential as that of the 50 or so Spanish delegates who were attending the Congress. Thus also neither Great Britain nor any other nation was placed at a disadvantage by the fact that, meeting in Madrid, there were far more Spanish delegates present than delegates from

any other country. Italy voted 5 for, Argentina and Norway 3 each for, and Venezuela 3 against. The resolution was thus carried by 19 votes against 18. The full details of this division deserve to be recorded, so that the system may be understood and a precedent created. All the other rules, with but some slight verbal alterations, were now adopted. Nevertheless, it was thought necessary to meet again on the following morning. It was the committee rather than the Congress that had still some important work to do. Therefore on Thursday we were back once more at the Central University and the international committee met in a private room. The question arose as to whether the system of the nationality vote was to apply to the committee meetings. In answer Mr. Adolphe Smith remarked that the committee was an executive and not a legislative body. It had to carry out decisions adopted in as practical a manner as possible and was governed exclusively by considerations of expediency, the questions of principle having been established by the constituency, that is by the Congress. Therefore, votes in committee should be by show of hands. The first matter to decide was the election of the officers. After some discussion but by a huge majority Dr. Cortezo was elected as president. We had all acquired considerable experience of Dr. Cortezo's tact and unfailing courtesy, as he had presided on behalf of Spain at all the sittings of the Congress. Dr. Posner, Dr. Dawson Williams, and Dr. Ascoli were elected as the three vice-presidents. Therefore there is a Spanish president with German, English, and Italian vice-presidents. France, in the person of Dr. Blondel, is represented in the post of general secretary, and Belgium retains Dr. Pechère as assistant secretary and treasurer. It was then decided that at least the International Committee should meet at Brussels immediately before the International Congress of Hygiene which will assemble in that town on Sept. 3rd this year.

We now proceeded to the grand hall, the *paraninfo*, of the University, and there Dr. BLONDEL read a paper on the Establishment of an International Information Bureau. No paper, he maintained, could have correspondents in all parts of the world, and just as the political daily papers had to subscribe to press agencies such as Reuter's so might a similar agency be organised for the benefit—the exclusive benefit—of medical journals belonging to the International Association of the Medical Press and this might prove an inducement to papers to join that association. He thought that a central bureau should be created under the patronage of the association to which all the papers would send summaries of their more important publications which would be distributed by means of the agency.

This explanation led to the asking of a few questions and the expressing of some doubts, and then Dr. ELÉZIA, who had been one of the delegates at the Monaco conference, rose and proposed that the association now definitely constituted should send a telegram to the Prince of Monaco thanking him once more for his hospitality and help during the earlier stages of the endeavour at organisation.

This was carried unanimously.

The names of the officers of the association were now read out amid great applause.

Dr. BLONDEL said a few words to thank the Spanish committee and its general secretary, Dr. Larra, and

Dr. CORTEZO gracefully alluded to his sorrow that the moment of parting had arrived. He did not know how to express his gratitude for the honour that had been conferred on him; he accepted the presidency, not as a personal matter, but in the name of Spain and as an honour conferred on his country.

The Congress having completed its task rose and was dissolved, the members hurrying to their respective quarters to prepare for the inaugural ceremony of the other Congress, the Fourteenth International Congress of Medicine, which was to be held that same afternoon.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday Fund.

NINE years ago the managers of this Fund were able to open a convalescent home for women at Llandudno in part of an old house called Marle Hall. This home when opened was very inferior in size to the neighbouring house called Tyn-y-Coed which was intended for male occupants. Marle Hall was originally a monastery which was burnt out and restored in the sixteenth century and again destroyed by fire in the eighteenth century. It remained a ruin for 100 years when one wing was rebuilt and occupied for some time by members of a well-known Staffordshire family. Nine years ago the Hospital Saturday Fund acquired this wing for the purposes above mentioned. The accommodation only permitted of the keeping up of 22 beds, a number soon found to be altogether inadequate; consequently a second house, also for the use of women, called Yr Erw, was rented, but even this did not meet the necessities of the case. It was therefore decided to purchase and to restore Marle Hall and this has now been done at a total expense of £16,000. The result is said to be architecturally satisfactory and the building will accommodate 85 convalescent women. Of the sum of money expended £5000 were to hand from accumulations of the fund and £1500 have since been given. The total number of women who have passed through the two homes mentioned above since they were opened has been 6620. The number of men who have passed through Tyn-y-Coed has been 8262, whilst 1193 children have been accommodated at Bryn Marle and at the Red House, Great Barr. Thus 16,075 convalescents have been occupants of the various homes maintained by the Fund since this part of the work was undertaken. At the opening of Marle Hall, which took place a few days ago, Alderman Cook, the chairman of the Fund, presided, and the Lord Mayor and Lady Mayoress of Birmingham were amongst those present, the latter performing the ceremony of opening the home. The committee anticipates that it will take several years to pay off the debt upon the buildings unless some large donations are made for that purpose or the subscriptions of the members of the Fund are increased for a time. The maintenance of the enlarged homes will also, of course, be an increased burden upon the Fund and it is calculated that at least £20,000 per annum must be raised in order to carry on all the work which is now being done.

Walsall Dispensary.

A provident dispensary has now been formed in Walsall in order to take the place of the clubs which have recently been disbanded and the rules under which it will work have been made public. This dispensary is intended to provide medical attendance and medicine for persons unable to pay ordinary medical fees. It is to include, in the first instance, all the medical men now resident in the district who can be persuaded to join it. As new-comers take up their residence with the intention of practising they are to be invited to join and are to be furnished with a copy of the rules by the secretary. The medical officers are to be of two kinds: active, who treat the patients of the dispensary; and honorary, who do not. Both classes will be entitled to attend the meetings of the dispensary and if elected to hold any office in it. Persons wishing to join as patients are to apply in the first instance to the secretary at the office and he is to provide them with a card to take to such medical officer as they may select. After the necessary expenses of the dispensary have been paid each quarter the remainder of the money is to be divided amongst the active medical officers in proportion to the number of patients on their respective lists. The expenses are to be apportioned in the same manner and the committee is to decide as to the eligibility for membership and the continuance of the same of patients. In the case of a patient apparently too well off to belong to the dispensary, the committee, on having the matter brought to its notice, is to inquire into it and to decide what course is to be adopted. When a medical man joins the dispensary he will be required to sign a declaration to the effect (1) that he will not take any contract patients at a lower rate than that paid to the dispensary, except members of existing friendly societies; (2) that he will not advertise for patients directly or indirectly; (3) that he will obey the rules of the dispensary and do nothing contrary to its welfare; and (4) that he will not meet professionally or in consultation non-conforming medical men. Power is given to the committee to call upon any medical officer who does not conform to the engagement which he has entered upon to resign, and in the event of his refusing, to expel him. In either case on his ceasing to be a member of the staff his patients may immediately choose another attendant.

Club Statistics.

A very interesting and valuable report on club statistics for the year 1902 has been prepared by the executive committee of the Birmingham and District General Medical

Practitioners' Union and published in its organ, the *Midland Medical Journal*. The statistics which have been tabulated relate to 34 clubs and the collected figures are sufficient to show the average rate of payment by local clubs for sick attendance. In the first place, the committee endeavoured to ascertain what was the average rate charged in private practice by general practitioners in the district for medical attendance on the working-classes who chiefly form the clubs which were the subject of inquiry. It appears that the average fees charged were 2*s.* 6*d.* for a visit, with medicine included, if necessary, and 1*s.* 6*d.* for a consultation with or without medicine, while "repeat" medicines were charged at a like price. It was then desired to ascertain how nearly the payments made by the sick clubs approximated to this standard, and after various methods of arriving at this conclusion had been tried it was finally decided to calculate how much the receipts would have been had the club patients been private patients. Taking all figures sent in it was found that in 1902, in 34 clubs there were 3063 visits and 13,042 consultations and medicine, remunerated by a sum of £786 19*s.* 7*d.*, whereas the sum received should have been £1361 0*s.* 6*d.*, a percentage of 57. Some of the clubs, however, consist mainly of old men and seem to be retained by their medical officers out of charity. When these are excluded from the calculation it is found that amongst the selected clubs there were 2108 visits and 9401 consultations, and that the remuneration was £627 10*s.* 9*d.* The remuneration on the lines indicated above should have been £968 11*s.* 6*d.*, so that the medical officers should have received half as much again as they actually did receive. On the sickness rate of 1902, which was rather lower than the average, a slight margin in favour of the medical man would have been left had each member paid 6*s.* per annum or 1½*d.* per week. Summing up the matter it may be said that the average rate paid per head of all the clubs of which information was to hand is very nearly 3*s.* 4*d.* on upwards of 3400 male adults and the average remuneration is 65 per cent. of the amount calculated above to be reasonable for a year which had less than the average sickness. It is pointed out that the figures only apply to a large city like Birmingham where the hospital facilities are great and where many of the most serious medical and surgical cases are sent, as a routine practice, to receive gratuitous treatment at these institutions. The multiplicity of these, while injuring the practitioner in his private practice, undoubtedly relieves the man in club practice of much onerous work, so that the rate of pay which would be equitable in a large city is by no means so great as it should be in small towns and in country practices.

May 26th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Small-pox in Liverpool: the Outbreak steadily declining.

DR. E. W. HOPE, the medical officer of health, made the satisfactory statement at the meeting of the health committee on May 21st that the epidemic of small-pox in Liverpool was steadily declining, but that he had no intention of relaxing any of the precautions hitherto adopted and especially that of vaccination and revaccination. It would be interesting to consider what had been the incidence of the disease on young children under five years of age. From the returns it appeared that about 7 per cent. of the children in Liverpool had escaped vaccination during the last six years, but he would take a liberal estimate and say 10 per cent., leaving 90 per cent. vaccinated. If the incidence of the disease were the same on the vaccinated and the unvaccinated, as the anti-vaccinationists insisted, the expectation would be that 90 per cent. of the cases among these young children would be among the vaccinated and 10 per cent. among the unvaccinated. The statistics, however, for the last six months showed that 71 children in Liverpool below the age of five years were attacked with small-pox and of these 66 were unvaccinated, while the remaining five had been vaccinated very imperfectly. These facts were very striking, but the most important point was that in the case of each of the vaccinated children the illness was very mild and each child soon recovered. In each of the 66 unvaccinated cases, however, the illness was very severe and 30 per cent. of the children died. During the last five years the rate of mortality from small-pox among the previously vaccinated was 2 per cent. of all ages, while among those not vaccinated it was 37 per cent. Within the last 18 months an enormous number of people in Liverpool, over 80,000, had been revaccinated, and from among them not a single case of small-pox had been admitted to hospital. Though the disease was now declining very fast there might be fresh importations and it would not be surprising if the decline were interrupted; therefore, precautions must be continued and revaccination should be performed wherever necessary. The weekly statistics showed that during the past week there had been six deaths from small-pox; 37 cases were reported, against 63 the week before, while there were 253 cases in hospital. The following record will show the incidence of the disease during the last three months: During the week ending March 7th, 88 cases were reported; March 14th, 84; March 21st, 85; March 28th, 67; April 4th, 62; April 11th, 66; April 18th, 94; April 25th, 69; May 2nd, 69; May 9th, 62; May 16th, 63; and May 23rd, 37 cases. The number of cases in hospital on March 19th was 335, as compared with 253 last week. These figures show that the health authorities of Liverpool are dealing with the epidemic as speedily as they possibly can. It is very easy for people outside to say that there is a greater spread of small-pox at the present time than a few months ago, but such statements are looked upon with surprise and amusement by the medical profession of Liverpool, who have the fullest confidence in Dr. Hope and his assistants. Moreover, Dr. Hope has managed to cope with the disease without the smallest friction with his medical *confreres* who at all times are only too ready to afford him all the assistance in their power in the matter of notification and in advising patients to go to hospital. It is generally admitted that no greater vigilance could be exercised than by the health department of the city.

Reported Escape of Small-pox Patients from Hospital.

The town clerk of Liverpool has informed the President of the Local Government Board that he caused inquiries to be made as to the statement that five patients had escaped from the Liverpool Small-pox Hospital. He found that there was no foundation for the report that five patients had escaped. One patient managed to get out of the hospital and reached a farmhouse in the precincts of the hospital grounds, but was promptly taken back to hospital.

Liverpool University.

Among the unopposed measures which came before the Earl of Morley, the chairman of committees in the House of Lords, on May 26th was the Liverpool University Bill. The object of the Bill is to separate the University College, Liverpool, from the Victoria University and to establish a Liverpool University, transferring all the property and liabilities of the College to the new university. Principal Dale of University College proved the preamble and the charter was also produced. The Earl of Morley having examined the clauses the Bill was passed and ordered to be reported for a third reading.

Liverpool School of Tropical Medicine: the Tsetse Fly Experiments in West Africa.

Dr. J. E. Dutton and Dr. Todd of the Senegambia expedition in connexion with the Liverpool School of Tropical Medicine have recently made a short visit to Bathurst, preparatory to a visit to Senegal. They have been conducting a considerable number of experiments in the colony with the tsetse fly on various animals, the results of which they are sending to Liverpool for further investigation at the Johnston Laboratory at University College.

Generous Gifts to Liverpool Hospitals.

The treasurer of the Stanley Hospital has received an anonymous gift of £1050 towards the cost of erection of the new operating theatre. Mr. Heath Harrison has also sent a donation of £250 to the funds of the David Lewis Northern Hospital. The gift comes at an opportune time, as the committee has recently had to realise securities to the amount of £500 in order to meet current expenditure.

Munificent Donation to the Crewe Cottage Memorial Hospital.

Mr. F. W. Webb, the retiring chief mechanical engineer of the London and North-Western Railway Company, has given the munificent sum of £5000 towards the endowment fund of the Crewe Cottage Memorial Hospital. The hospital owes its inception to Mr. Webb who, in conjunction with Mr.

Henry Yates Thompson of Liverpool, subscribed a large amount which made the erection of the hospital possible.
May 26th.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

Typhus Fever in Merthyr.

THE story which Mr. D. J. Thomas, the medical officer of health of Merthyr, has to tell in his annual report of an outbreak of typhus fever which occurred in Dowlais during 1902 is not at all pleasant reading. The last occasion on which the disease appeared in the town was in 1894 and in previous years there had been outbreaks. In 1902 there were 22 cases of which eight terminated fatally. The source of infection was in many instances defined but not in all. The insanitary conditions of all the initial cases were well established. Poverty, filth, and overcrowding were present and attention had been previously drawn to the insanitary conditions of some of the houses in question. One of the affected houses was one of a row situated on the hillside with a backyard from three to five feet wide terminating in a retaining wall 20 feet high, an arrangement which favours a stagnation of the air inside the house. There were a kitchen and a scullery on the ground floor and two bedrooms above; the capacity of the two bedrooms was 1200 cubic feet and these were occupied at the time of the outbreak by husband, wife, six children, and four lodgers. Some of the men worked at night so that the beds were in constant occupation. The one remedy for such overcrowding as this, as Mr. Thomas points out, is in the establishment of properly regulated common lodging-houses. In a district of the character of Dowlais there ought not to be any difficulty in making a lodging-house self-supporting even if erected by the sanitary authority.

Bristol Port Sanitary Authority.

In their annual report upon the Bristol port sanitary district Dr. D. S. Davies and Mr. J. C. Heaven again draw attention to the urgency of requiring shipowners to rid their ships of rats. They point out that while definite precautions are universally enforced against non-living infection-carrying material such as clothes and bedding, living infection-carrying material endowed with locomotion and of migratory instincts is allowed unrestricted importation. The concluding paragraphs of this report are of such general application that they may profitably be quoted: "It would result in a saving not only to the health or lives of the crew but also to the pockets of the merchants if shipowners were compelled to take simple measures of precaution, for nothing can be more wastefully expensive than an actual outbreak of plague and 'prevention in advance,' though less showy, is far more desirable than 'stamping out,' which involves the permitted introduction of disease. Since 1901 there has been a curious lull in alarms of ship-brought plague to the United Kingdom which has not had an altogether good effect, for in the absence of actual and pressing danger it is impossible to maintain the expenditure for a properly vigilant outlook and anticipatory precautions are the last matters upon which the ratepayer is willing to be liberal, so inured by long habit has he become to the belated process of 'stamping out' at great cost outbreaks which might oftentimes at much smaller outlay have been prevented."

Bristol Workhouse Infirmary.

The controversy between the Bristol board of guardians and the Local Government Board with regard to the provision of more suitable infirmary accommodation has reached a further stage. The Local Government Board has been insistent as to the urgent necessity for discontinuing the use of the existing wooden buildings at the Eastville workhouse and for erecting a permanent infirmary upon land which the board of guardians described when asking for sanction to acquire it as "eminently suitable as a site for the proposed infirmary." The Bristol board now proposes to use the Eastville workhouse almost exclusively for the able-bodied and for the aged inmates who are in good health and to treat the sick and infirm at the Stapleton workhouse, adjoining which it is proposed to erect a new building to accommodate 250 patients and a separate block to be under independent management for 500 imbeciles. Upon the receipt by the Local Government Board of these proposals two of the Board's inspectors, Mr. Andrew Fuller and Mr. E. B. Wethered, together with the Board's architect, Mr. Kitchen, reported in detail upon the scheme which they do not consider to be at all satisfactory, both on account of the difficulty entailed in adapting old buildings to modern requirements and because there would be no adequate space for future extensions.

Stratton and Bude Water-supply.

On May 21st General Sir Redvers Buller formally opened the new waterworks which have been erected by the urban district council of Stratton and Bude, Cornwall. The water is collected in a reservoir which covers 70 acres, which has a capacity of about 150,000,000 gallons, and which is situated at Bradworthy about 10 miles from Bude. The water is carried along the Bude Canal, which the council has purchased for £8000, and the filtering and other arrangements are most efficiently carried out. The cost of the undertaking has been £23,000. The urban council believes that the thoroughly satisfactory water-supply now provided will assist the town in taking its proper place as a seaside and health resort
May 26th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Ulster Branch of the British Medical Association.

AT the spring meeting of the Ulster Branch of the British Medical Association held in the Medical Institute, Belfast, on May 13th, the President (Professor T. Sinclair) brought forward a motion expressing the sincere regret of the members at the death of their treasurer, Dr. George Gray, J.P., of Newcastle, co. Down. This was seconded by Dr. H. O'Neill, J.P., and passed. Mr. C. K. Darnell read notes of a case of Penetrating Wound of the Abdomen by the shaft of a car and showed the patient. Dr. John Campbell read a short paper on Subperitoneal Lipomata with notes of two cases. Professor J. W. Byers read a paper on the Early Treatment of Acute Puerperal Infection. In the discussion following the reading of these communications the President, Dr. J. S. Darling (Lurgan), Mr. A. B. Mitchell, Dr. Campbell, Dr. W. A. Wadsworth, Dr. R. M. Fraser, Dr. H. J. Ritchie, Dr. J. C. Martin (Portrush), Dr. W. A. M'Keown, Dr. J. T. Creery (Coleraine), and Dr. W. Calwell took part. Professor Byers proposed the following motions of which he had given notice:—

1. That in the opinion of the Ulster Branch the present position of the Poor-law medical service is most unsatisfactory and calls for immediate amendment in respect to (*a*) remuneration, (*b*) annual holidays, and (*c*) superannuation.
2. That the council of the British Medical Association be requested to adopt such measures as may be considered advisable to redress as quickly as possible the grievances of the Irish poor-law medical officers.

In submitting these motions, Professor Byers referred to the grievances complained of, the results of these disabilities, the demands of the medical officers, and the methods by which these grievances could be redressed. Dr. M'Keown (Senator of the Royal University), in seconding the adoption of the motions, spoke of the importance of a firm stand being made all along the line by the medical profession on this important question. Professor J. Symington, F.R.S., in supporting the motions, said that he had advised Belfast students not to enter the service unless the disabilities complained of were removed. The motions were passed unanimously.

Belfast Maternity Hospital.

An excellent site in a thickly populated district of Belfast has been selected for the new Maternity Hospital which it is hoped will soon be erected.

Royal Medical Benevolent Fund.

From the report of the Belfast and County Antrim Branch of the Royal Medical Benevolent Fund of Ireland presented to the members at the annual meeting in the Medical Institute, Belfast, on May 15th, it appears that the gross contributions from all sources were £172 7*s.*, less expenses £11 6*s.* 9*d.*, leaving a net sum of £161 0*s.* 3*d.* in the hands of the central treasurer. This is £4 18*s.* 7*d.* less than last year, and £19 7*s.* 4*d.* below 1901. Out of 198 medical men in Belfast, 153 contributed £106 10*s.* 6*d.*, but 45, or 25 per cent. of the profession, gave nothing. Of the 213 country members 43 gave £32 2*s.*, but 170 made no response to the

appeal. The amount contributed by the profession in Ireland averages only about 2s. per head per annum. Officers for the ensuing year were elected, Sir W. Whitla being appointed President, and Dr. R. Purdon secretary and treasurer.

Irish Poor-law Guardians and their Medical Officers.

The conflict between the medical officers of dispensaries and Poor-law union hospitals and the new boards of guardians has recently become more urgent every week. It seems now to be approaching an acute phase. At a meeting of the Omagh board on May 23rd, Mr. George Murnaghan, M.P., in the chair, a letter was read from the Tyrone branch of the Irish Medical Association signed by the President (Dr. E. C. Thompson, M.P.), in which it was stated that the branch had unanimously resolved to adopt the rules of the association in reference to the salaries of dispensary and workhouse medical officers as well as to the sums agreed upon as payment for substitutes, &c. The letter went on to state that "the Irish Poor-law officers were determined to adopt the system by which the tenant farmers of Ireland have effected so many useful reforms—viz., combination—and they intend to vigorously enforce the by-laws of the association which will prevent them in future making a consultation or helping in any way any Poor-law medical officer or other medical practitioner who does not support this association or who fails to help them in their efforts to obtain the redress of their legitimate grievances." When the letter had been read the chairman of the meeting said: "I think that we should draw the attention of the Local Government Board to this letter and ask them if they are going to give to these men the same treatment that they gave to the tenants when they conspired to prevent men doing what they had a legitimate right to do. It is intimidation, for they threaten any doctor who does not fall in line with them." Another difficulty has recently taken place as regards this matter in the Tullamore Union in connexion with the election of a medical officer for the Killoughey dispensary district, in which tenders were invited on the same terms as heretofore—namely, £100 as dispensary officer and £20 as medical officer of health. At the last meeting of the board no application was made and the guardians were obliged to advertise a third time for candidates for the position. The chairman, Mr William Adams, J.P., said that "he did not blame the medical officers of Ireland for organising to protect their interests, but he certainly denied their right as employés to fix their own salaries. Their duties had not increased under the new Act and if they were being underpaid it was regrettable and unfortunate that they did not look for increases when the landlords were paying half the poor-rate and when recoupment in respect of such increases from Imperial sources was more favourable. Instead of that they selected a time when the ratepayers would have to bear the whole burden, and when popular local government was so keenly observed and criticised." He concluded by saying that the guardians would fight the matter to the bitter end, and from what he had heard of the letters sent to candidates by the Irish Medical Association he would state that if they came from any of the people's organisations with which he was connected there would be imprisonment for some of the members for intimidation and boycotting. The Local Government Board has written to the Downpatrick board of guardians (under date of May 21st) saying it considers the tone of Mr. Olpherts's letter[1] to the guardians as most unbecoming and stating that if a dispensary medical officer is absent from his district the guardians have a right to satisfy themselves that proper arrangements are made for the discharge of the duties during such absence, but it is only fair to Mr. Olpherts to indicate that he says that he left the district in charge of a thoroughly competent medical man and by arrangement.

Workhouse Consumptive Patients.

The Rev. Dr. Henry, Roman Catholic bishop of Down and Connor, has written to the Belfast board of guardians offering them a site at Orlands, a beautiful estate which he has purchased on Belfast Lough, free of rent, on which to erect wooden cottages or bungalows for 100 or more consumptive patients. The sisters of mercy in charge of Orlands undertake to give their own valuable assistance as well as the services of trained nurses for the relief and benefit of the patients. The bishop was thanked for his generous offer and the matter was referred to a subcommittee of the infirmary committee.

The Increase of Insanity in Ireland.

That insanity is steadily increasing in Ireland seems now to be an admitted fact and it has been decided to hold a conference of representatives from the committees of all the district asylums in Ireland to consider the questions of this increase of insanity, the management of the insane, and the readjustment of Government aid. At the Richmond Asylum, Dublin, on Dec. 31st, 1898, there were 2047 patients on the register, and on April 22nd of this year there were 2563, and in all parts of the country there is the same report of overcrowded asylums. No adequate explanation of this increase, whether apparent or, as most authorities think, real, has yet been offered.

May 26th.

[1] THE LANCET, May 23rd, 1903, p. 1485.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Tetanus Infection conveyed by Gelatinised Serum.

AT the meeting of the Academy of Medicine held on May 12th M. Dieulafoy mentioned the case of a patient who suffered from pulmonary consumption with hæmoptysis and who died 11 days after receiving an injection of gelatinised serum which it was hoped would diminish the hæmoptysis. This was the twenty-third time that that method of treatment had been followed by a fatal result and M. Dieulafoy said that he would now abandon it as being too dangerous. M. Hayem remarked that ordinary artificial serum, which was easily sterilised, always appeared to him to be sufficient for the arrest of hæmorrhage. A question then arose as to the laying down of rules for the preparation and sale of gelatinised serum under conditions which would render such accidents impossible. M. Dieulafoy said that he believed that in Germany the calves from which the gelatin was obtained were carefully selected, to which M. Roux replied that the tetanus bacilli in the gelatin were derived not so much from the animal which supplied the gelatin as from the dust in the drying-rooms of the gelatin factories. The best plan was therefore to put no dependence on it.

Dysentery.

At the same meeting of the Academy of Medicine M. Vaillard and M. Dopter submitted a communication which was a very complete and remarkable investigation of bacterial dysentery, based upon 130 cases observed in the garrison of Vincennes from July 16th to Sept. 24th, 1902. Since the researches of M. Chantemesse and M. Widal, which were carried on about 16 years ago and which led to the discovery of the bacillus of epidemic dysentery, it had been found necessary to recognise two types of dysentery, one of which is due to amœbæ (dysentery of warm climates) and the other to bacilli (European dysentery). In all the dysenteric patients at Vincennes M. Vaillard and M. Dopter found Chantemesse's bacillus, rounded at the two ends, motionless, not decomposing lactose, not producing indol, and therefore occupying an intermediate position between the ordinary colon bacillus and the bacillus of typhoid fever. They found it in the region round the intestinal ulcerations and in the mesenteric ganglia, just as M. Chantemesse had observed it; they saw cultures of it agglutinated by the blood serum of dysenteric patients infected from different sources. Filtered cultures of it injected under the skin of the rabbit, the dog, and the pig reproduced in these animals a disease which was identical with dysentery and accompanied by fever, intestinal ulceration, diarrhœa with evacuation of serum and blood, general coldness, and death. The blood of animals immunised by graduated inoculations furnished a serum possessed of curative properties for dysenteric subjects, so that the cure of this disease by means of serum treatment might be predicted for the near future.

Strike of the Resident Medical Officers of a Hospital.

A singular dispute has just arisen between the managing body and the resident medical officers (*internes*) of the hospitals (*hospices*) of Reims. In consequence of the existence of differences of opinion between the newly appointed steward of the Hôtel Dieu and the resident medical officers the matter was brought before the hospital committee which upheld the steward and ordered the medical

officers to pay fines amounting to a total of 70 francs (£2 16s.). The medical officers, however, refused to obey this order and quitted their posts, leaving only one of their number to attend to cases of accident.

New Methods of employing Antitoxic Sera.

At a recent meeting of the Academy of Science M. Calmette gave an account of a very ingenious method of using anti-tetanic serum, the serum being dried, pulverised, and applied as a dressing to wounds which are presumably infected by tetanus. Anti-tetanic serum has hitherto not fulfilled the expectations which were hoped for from its use. Administered as a preventive it exercises a prophylactic action for some 15 days, but employed in patients already attacked by tetanus it is very uncertain in its action even though it be employed by means of the heroic method proposed by Borrell and which consists in injecting serum into the cerebral substance through an opening made by a trephine. Calmette used guinea-pigs for his experiments and infected wounds made in them with earth which was full of tetanus germs, the guinea-pigs all dying within four or six days. Other guinea-pigs, however, treated in the same way as regards infection, but whose wounds were dressed with the powdered anti-tetanic serum all lived. The dressing must be applied within six hours after the wound and if applied later the results are uncertain. This discovery should be of great interest to employers of navvies and others engaged in excavating works, among whom tetanus is frequent and whose wounds are so often infected by the earth, all the more because a serum prepared in this manner preserves its properties indefinitely and seems capable of many applications. In Indo-China, for example, some 20 per cent. of the newly-born children die from tetanus owing to infection by the umbilical cord when the dry portion falls off. M. L. Martin of the Pasteur Institute has brought forward a somewhat similar method of treatment by employing anti-diphtheritic serum as a dressing to the false membranes of diphtheria. M. Martin obtains his serum in a different way from the method of Behring and Roux, as he injects directly into the veins of the horse the microbes of diphtheria after having been heated up to 100° C. The serum thus obtained has an agglutinating power very superior to that obtained by Roux's method. When this serum is applied to the diphtheritic membranes in the throat it causes them to swell, to become yellow, and quickly to fall off and the pain is greatly diminished. The buccal cavity is thus thoroughly disinfected, and in order to render the effect more prolonged M. Martin proposes to incorporate his serum with gum so as to form a jujube which can be slowly sucked. We have here a method of applying diphtheritic serum which without dispensing with the injection of serum in definite cases of diphtheria will most likely diminish very largely both the gravity and the duration of the malady and probably, too, the method may act as a preventive in times of epidemic if applied to patients threatened with diphtheria.

May 26th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Sanatoriums for Tuberculous Patients.

THE German central committee for the establishment of sanatoriums for tuberculous patients held its annual meeting in Berlin on May 17th. About 200 members were present, including Count Posadowsky (Secretary of State), Herr Möller (Minister of Commerce), Professor Leube of Würzburg, and Dr. Althoff (a representative of the Government Medical Department). Count Posadowsky, who presided, delivered an address in which he called attention to the question of the housing of the poorer classes. He said that healthy dwellings were a prime requisite in the prevention of tuberculosis and that municipal authorities must either (1) themselves purchase sites for the erection of such dwellings in the suburbs, or at least in the vicinity, of the larger towns, or (2) they must avoid taking any course which might interfere with the action of the benevolent societies the object of which is to provide such dwellings. Baron von der Knesebeck, chamberlain to the Empress, said that the committee had done a great deal for male adults suffering from pulmonary tuberculosis but that it had not shown equal consideration for women and children. He had therefore been commanded to express Her Majesty's hope that additional sanatoriums for the reception of women and children would be provided. Professor Pannwitz then read the annual report on the sanatoriums, the Erholungsstätten,[1] the dispensaries, and other institutions with which the committee is connected. Professor von Leyden followed with a paper on the Efficacy of Sanatorium Treatment. After sketching the history of the movement for the prevention of tuberculosis in Germany he referred to the decrease in the mortality from that disease, a result which, he said, was in no small degree due to the sanatoriums. He was sorry to find that the sanatorium system had been unfavourably criticised by some medical men who seemed not sufficiently to have remembered that the lives of thousands of patients had been prolonged by means of the food, nursing, and medical care which they received in the sanatoriums and that the results would be still better if the patients could be permitted to make a longer stay in them. Sanatoriums, of course, were not a panacea, and their work required to be supplemented by other means such as the dispensaries, the Erholungsstätten, the asylums for incurable patients, and the seaside homes for children. In England and France pulmonary tuberculosis had also been successfully opposed by means of general hygienic measures, but the sanatorium system was not so well developed in these countries as in Germany where sanatoriums were established in connexion with the workmen's insurance clubs and were partly supported out of the funds of these institutions. In conclusion, Professor von Leyden advocated the compulsory notification of tuberculosis. Herr Gäbel, president of the Imperial Insurance Office, read a paper compiled from the enormous statistical material at his disposal showing that among 1000 men at various age periods who received sick pay under the workmen's insurance laws the proportion of those suffering from tuberculosis was 549 per 1000 from 20 to 24 years, 509 per 1000 from 25 to 29 years, and 429 per 1000 from 30 to 35 years; for the female sex the corresponding proportions were 425, 343, and 258 per 1000. There was a predominance of factory workers as compared with country labourers. The workmen's insurance institutions (Landes-Versicherungs-Anstalten) had provided for 16,489 patients suffering from tuberculosis at an average cost per head of 355 marks (£17 15s.). Herr Pütter, town councillor of Halle, described the work of the anti-tuberculosis association there. Once a week the medical officer examined patients sent to him by the president of the association. Thermometers were given to them and they were shown how to take their temperatures, those who could not do this properly being visited at their homes by nurses and deaconesses connected with the association. The sputa were examined at the municipal laboratory free of charge. The patients also received printed instructions on the subject of hygiene and in certain cases money to be spent on food; they were also supplied with various articles of table service so that they need not have recourse to those which were used by the other members of the family. In the case of unmarried persons living alone the association took lodgings for them and disinfected the rooms with formalin from time to time. The whole town was divided into 28 districts in each of which a nurse or a lady visitor was appointed to look after the patients of the association. The association worked in harmony with the university clinics and other hospitals and also with the medical men who were quite willing to hand over the care of their poorer patients to the association. Dr. Kayserling of Berlin gave an account of what was being done in England with especial reference to the voluntary notification of tuberculosis and the proceedings terminated with a visit to the sanatoriums of the Berlin insurance institution (Landes-Versicherungs-Anstalt).

Medical Men in Parliament.

The number of medical men in the German Parliament has hitherto been smaller than in France and some other countries and the medical members of the Reichstag practise their profession only to a very limited extent. As medical interests have therefore but seldom received in Parliament an amount of consideration commensurate with the importance of the profession, it is a favourable sign that the number of medical men who have offered themselves as candidates at the forthcoming elections is greater

[1] Erholungsstätten are places where tuberculous patients spend the day in the open air, returning to their homes at night. There are several in the vicinity of Berlin.

than on former occasions. According to the medical journals the following members of the profession have been nominated in the places mentioned: Dr. Rügenberg in Bonn, Dr. Höffel in Zabern (Alsace), Dr. Krzyminski in Inowrazlaw, Dr. Bernstein in Torgau, Dr. Hollstein in Zittau, Dr. Mugdan in Görlitz, Dr. Leonhardt in Kiel, and Dr. Weyl in West Priegnitz. The candidature of Dr. Mugdan will be regarded with particular interest by medical men, as he is one of the founders of the "free-choice society" and holds a prominent position in the profession.

May 25th.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE seventy-sixth session of the General Council of Medical Education and Registration was opened on May 21st at the office of the Council, Sir William Turner, K.C.B., the President, being in the chair.

The regular date for the summer meeting of the Council is on the fourth Tuesday in May, but this year, owing to Whit-Monday falling on June 1st, it was felt by the Executive Committee that if the Council met on the regular day the business probably could not be finished before Whitsuntide, hence the alteration of the date of the meeting.

The *personnel* of the Council has undergone some changes since the last meeting in November. Sir William T. Gairdner, owing to failing health, found it necessary to resign the representation of the University of Glasgow and the University appointed as his successor Dr. T. McCall Anderson, the professor of medicine. The period of office of Sir Hector C. Cameron, the representative of the Faculty of Physicians and Surgeons of Glasgow, has also expired since November last. Sir Hector Cameron having intimated that he did not intend to seek re-election Dr. John Lindsay Steven was appointed in his place.

Sir William Turner in his Presidential Address, of which we give an abstract elsewhere, after referring to the resignations which we have just mentioned, spoke as to the inspections which had been held of the examinations of the various licensing bodies. Other points to which he referred in his speech were the financial condition of the Council, the Medical Act of 1902 under which the Medical Council of Canada had been constituted, and the Bill which had been introduced and read the first time in the House of Commons for amending the penal and disciplinary powers of the Council and of the licensing bodies.

On Saturday, May 23rd, a discussion arose concerning the Pharmacy Bill promoted by Mr. Lough, M.P., Sir Hugh Beevor asking the President whether his attention had been called to the fact that the Bill contained no exemption of registered medical practitioners from its provisions and whether the Council should not take some steps with reference to this or any other Bill promoted on similar lines to see that the interests of medical practitioners are properly protected. We ourselves called attention in THE LANCET of April 4th, p. 982, to the fact that the Bill was against the interests of practitioners and finally the Council, on the motion of Dr. MacAlister, decided that the President should lay the matter before the Lord President of the Privy Council and should state that in the opinion of the General Medical Council the encroachment upon the rights of the medical profession ought not to obtain the sanction of Parliament. The interesting point about the discussion was the opinion of Sir Hugh Beevor and of Sir Victor Horsley that the matter was a proper one to be brought before the General Medical Council, but as we have previously pointed out the General Medical Council does not seem to have any legal status whatever as being a body for protecting the interests of the profession except in so far that it can purge the profession of offending members. Hence we are glad to see that the matter will be laid before the Lord President of the Privy Council, because of the weight of the opinion of this body with the Government.

The Council at the sitting on Monday, May 25th, took into consideration two penal cases, that of Dr. James Kirkland of 7, Ladbroke-square, W., and that of Mr. Edward John Smith. Both these gentlemen appeared in person, the case of the latter gentleman being an adjourned one. Dr. Kirkland undertook that he would not again repeat his conduct and it having been proved that Mr. Smith had given no grounds for complaint since his last appearance and that he had also undertaken to discontinue the practice complained of both gentlemen were informed that the Council would not proceed further against them. Other penal cases of a comparatively unimportant nature were proceeded with on Tuesday, May 26th.

THURSDAY, MAY 21ST.

The seventy-sixth session of the General Council of Medical Education and Registration was opened to-day in the premises at 299, Oxford-street, London, W. Sir WILLIAM TURNER, the President, was in the chair and there was a full attendance.

New Members.

The following official notifications were read by the Registrar (Mr. H. E. ALLEN):—

Glasgow, April 6th, 1903.

We, the Faculty of Physicians and Surgeons of Glasgow, in pursuance of the power given to us by the Medical Act (1858) do hereby appoint Dr. John Lindsay Steven to be a member of the General Council of Medical Education and Registration of the United Kingdom for the term of three years from the 6th day of April, 1903.

ALEXANDER DUNCAN, Secretary.

91, West Regent-street, Glasgow.

DEAR SIR,—I have to inform you that Sir William T. Gairdner, K.C.B., M.D., has intimated to the Court his resignation as representative of the University of Glasgow on the General Medical Council, and at a meeting held yesterday the University Court appointed Professor Thomas McCall Anderson, M.D., the University, Glasgow, in Sir William Gairdner's place for a period of five years from 14th May, 1903.

Yours faithfully,

ALAN E. CLAPPERTON,
Secretary, Glasgow University Court.

The Registrar, General Medical Council.

Dr. STEVEN was introduced to the Council by Dr. P. HERON WATSON and Professor MCCALL ANDERSON by Dr. D. W. FINLAY.

The President's Address.

In his address at the opening of the seventy-sixth session of the General Medical Council, the PRESIDENT commenced by referring to the reasons which had made it necessary that the Council should meet on a Thursday instead of the fourth Tuesday in May. He then mentioned with regret the resignation of Sir William Gairdner, who, he said, had that morning sent him a letter, the conclusion of which was as follows:—

It only remains to me to ask you, as President, to be the means of conveying to my colleagues the deep sense of the kindness and consideration with which I have always been treated as the representative of the University of Glasgow, and my deep regret at the sudden termination of our always pleasant intercourse at the Council Board.

The President, continuing, offered the welcome of the Council to Sir William Gairdner's successor, Professor McCall Anderson, and went on to express the value which the Council attached to the services of Sir Hector Cameron, who had also resigned. To Dr. Lindsay Steven, his successor, the Council looked for a continuance of his predecessor's good work. The reports of the visitor and inspectors of the final examinations of all the licensing authorities with the exception of the Scottish universities had for the most part been received. The Scottish universities were to have been inspected during the summer but owing to the regrettable illness of Sir George Duffey, the Council's inspector, it

remained for the Council to decide whether it would appoint a new inspector or hold the inspection over until next year in the hope that Sir George Duffey would then be able to undertake the task. This latter course, said the President, was the one which appealed to himself. The President continued:—With regard to finance, the Council will recollect that at the last meeting a report was presented by the Financial Relations Committee accompanied by a draft Bill to amend the Medical Acts, one of the objects of which was, by raising the fee payable on registration to a sum not exceeding £10, to augment the income of the Council so as to make it sufficient to meet the increase in its expenditure. On Dec. 2nd the Council resolved to refer the report and draft Bill back to the committee for further consideration and members of the Council were invited to make suggestions in regard to "economies in expenditure." Many suggestions have been received which have been grouped and summarised by our Registrar and circulated amongst the members of the Council. These will have to be considered by the Financial Relations Committee and reported on to the Council. I may recall to the Council that in a paragraph in the report of the Financial Relations Committee (Minutes, Nov. 29th, 1902, p. 137) it was stated that I had suggested that a memorial should be framed for presentation to the Privy Council in explanation of the condition of our finances. A memorandum on this subject which may serve as the basis of a memorial has been prepared and circulated amongst the members of the Council and I propose to ask you to consider it before the close of the meeting. In my address at the commencement of last session I called attention to the Medical Act, 1902, passed by the Canadian legislature, and approved by the King, under which a Medical Council of Canada was constituted. Power was given to establish a register of medical practitioners in Canada and to provide them with the status required for the establishment of reciprocal relations between the Dominion of Canada and the United Kingdom, such as on the one hand would enable practitioners with recognised Canadian diplomas to acquire the right of registration under our home Medical Acts and on the other would enable practitioners registered under these Acts to be admitted to the Canadian Register. In order to bring the Canada Medical Act into operation and to enable the Canadian practitioners to obtain the benefit of Part II. of the Medical Act, 1886, it is necessary *inter alia* that the provincial legislatures in Canada should renounce their present right of independent registration and consent to the formation of a register for the whole Dominion. From information which I have received it seems that at least one of the provinces is not prepared to adopt this course and so long as this attitude is maintained the whole Dominion of Canada will, under the present law, be excluded from the provisions of Part II. of the Act of 1886. It is much to be regretted that local influences should have interfered with the adoption of the Act throughout the Dominion, for as by Section 36 of the Medical Act, 1858, no person can hold any appointment as a physician, surgeon, or other medical officer in the military or naval service of the Crown, or fill certain civil appointments, unless he is on the Register of the United Kingdom, Canadian practitioners will therefore continue to labour under their present disability. Seeing that practitioners who possess diplomas granted in New Zealand and in three of the States of Australia, the universities in which confer medical degrees, are admitted to the Medical Register of the United Kingdom, and are thereby qualified to hold office in the public service, it is a matter for consideration whether something should not be done to put our Canadian brethren on an equal footing. Legislation to accomplish this purpose would not be complicated in its character. The 17th and 27th Sections of the Medical Act, 1886, Part II., might be so modified as to enable His Majesty by order in Council to declare that when a British possession is under both a central and a provincial or local legislature this part of the Act might apply to any province which, in the opinion of His Majesty, affords to the registered medical practitioners of the United Kingdom such privileges of practising as to His Majesty may seem just. A modification of the Medical Act in this direction is to be preferred to the proposal originally made by General Laurie in a Bill of last year again before Parliament, by which colonial practitioners would be admitted to our home Register without a corresponding equivalent being granted in the colony. But a second Bill, also introduced by General Laurie, provides the necessary modification should the Canadian Medical Act, 1902, not become operative. It would also in course of time bring all the provinces in a British possession into line, as any province which might at first be disinclined to concur would before long find that the medical practitioners within its area were placed at a disadvantage compared with those practising in adjoining provinces. The Bill prepared a few years ago at the request of the Council for amending the penal and disciplinary powers of the Council and the licensing bodies has been introduced into the House of Commons by our colleague Sir John Batty Tuke and read a first time. Its place as determined by the ballot is low down on the list and unless something unexpected arises to improve its position and to remove an opposition threatened by some Members of the House of Commons it is doubtful if it can make further progress during the present session. Mr. Norman King, one of the clerks in the office, has very usefully occupied his leisure by compiling on his own initiative an analytical index of the contents of our minutes from the year 1886 to 1902. Along with the index volume published in 1888 the Council will now have the means of referring to the subjects which have been under its consideration from its foundation in 1858 without the loss of time entailed in consulting the indices in the separate volumes. The Executive Committee has framed a motion on the matter which will be submitted to the Council by the chairman of business. The disciplinary cases to be brought before you during the session are unusually numerous and some of the offences alleged to have been committed are of a nature which seriously affect the character of the accused practitioners.

It was moved by Dr. MACALISTER, seconded by Mr. BRYANT, and carried by acclamation:—

That the President be thanked for his address and requested to let it be printed in the minutes.

Business Committee.

On the motion of Dr. MCVAIL, seconded by Mr. BROWN, it was agreed that the following should constitute the Business Committee: Dr. MacAlister (chairman), Mr. Bryant, Dr. Bruce, and Sir Christopher Nixon.

A Question of Procedure.

Sir VICTOR HORSLEY at this stage of the business put a question with respect to the following notice of motion he had placed on the paper:—

To call attention to the report by the visitors of the examination in chemistry, physics, and biology of the Conjoint Examining Board in England, of the Royal College of Physicians of London, and the Royal College of Surgeons of England, together with the remarks by the bodies inspected, and to move a motion thereon.

He wished to put the question to the Examination Committee. He understood that the customary procedure, which was that the chairman of the committee should draw up a draft report and send it round for consideration, had in this instance not been followed and he wanted to know why that procedure had not been followed.

The PRESIDENT: I think the Examination Committee will have a report.

Sir VICTOR HORSLEY: This session?

The PRESIDENT: I hope so; so far as the bodies have been inspected and so far as the Council has received their comments.

Sir VICTOR HORSLEY: We ought to have all these reports before us. The chairman of the Examination Committee ought to tell us why these were not circulated.

Mr. BRYANT, as chairman of the Examination Committee: The Examination Committee has not met to consider a report. It was understood that there would be no such report until all the papers, all the reports on primary education, could be obtained and considered together, so that the results could be compared.

Sir VICTOR HORSLEY declined to admit any understanding of the kind suggested. In the ordinary course the reports must be circulated and Mr. Bryant's explanation was not at all satisfactory.

The PRESIDENT: Well, go on with the next business.

Professional Medical Examinations.

The REGISTRAR presented annual tabulated statements for the year 1902 as follows:—

(*a*) Table showing results of professional medical examinations during 1902.
(*b*) Table showing results of professional examinations for qualifications in sanitary science, public health, or state medicine during 1902.
(*c*) Table showing results of professional dental examinations during 1902.

(*d*) Table showing results of preliminary examinations during 1902.
(*e*) Answers sent by the medical authorities as to the exemptions granted by them in any part of their examinations during the year 1902.
(*f*) Table showing results of competition held on Nov. 17th, 1902, for commissions in the medical staff of the Royal Navy.
(*g*) Table showing results of competition held in January, 1903, for commissions in the Indian Medical Service.

To these tabular statements there was attached an explanation showing that of all of them proofs had been sent to the bodies concerned and any corrections of these proofs made by them had been attended to. The chief part of Table E was this :—

SUMMARY OF ANSWERS.

The English Conjoint Board sends lists showing that in the year 1902 242 persons were exempted from the first and second examinations; that the exemptions from the entire first examination were 97; that two were exempted from chemistry and physics only, and 16 from biology only. With the exception of one student from the Liceo of Costa Rica, all these exemptions were granted to students from British, Indian, colonial, and foreign universities. There are no exemptions whatever from any part of the final examination of the Apothecaries' Society of London. 99 candidates were exempted during the year 1902 from the primary examination in one or more of the subjects in which they had already satisfied the examiners, either at medical corporations of the United Kingdom or at British, Indian, or foreign universities; one candidate, however, being exempted on the ground of having passed an examination of the Pharmaceutical Society of Great Britain and one an examination of the College of Physicians and Surgeons of New York.

During the year 1902 the University of Birmingham granted exemptions to eight students at their first examination, to one at their second, and to one at their third. Six of the exemptions at the first examination were granted to students from the University of London, all the remaining students being from the University of Durham.

The Scottish Conjoint Board sends a table showing that 78 persons were exempted from the entire first examination in 1902, 64 from the entire second examination, and 31 from the entire third examination, besides several exemptions from parts of these examinations. There were no exemptions from any part of the final examination. The University of Edinburgh only grants exemptions in the subjects of the first professional examinations—viz., botany, chemistry, physics, and zoology—and only under certain specified conditions. During the year 1902 exemptions were granted to ten candidates.

The Irish Conjoint Board sends particulars of exemptions granted to six candidates during the year 1902. One candidate was exempted from surgery at the final examination of the Apothecaries' Hall of Dublin in July, 1902, on the ground of his having passed in that subject at the Royal College of Surgeons of England. Three candidates were exempted from the written parts of the M.B. examination of the University of Dublin on the ground of their being over five years registered.

The following bodies granted no exemptions during the year 1902: the Royal College of Physicians of London (so far as the examinations for the Membership and independent Licence were concerned), the Royal College of Surgeons of England (so far as the examinations for the separate Membership were concerned), the University of Oxford, the University of Cambridge, the University of Durham, the University of London, the Victoria University, *the Royal College of Physicians of Edinburgh, *the Royal College of Surgeons of Edinburgh, *the Faculty of Physicians and Surgeons of Glasgow, the University of Aberdeen, the University of Glasgow, the University of St. Andrews, *the Royal College of Physicians of Ireland, *the Royal College of Surgeons in Ireland, and the Royal University of Ireland.
[* So far as the single Licences of these Colleges were concerned.]

Dr. MACALISTER moved that these tables should be received and entered on the minutes. In doing so, however, he called special attention to the answer from the secretary of the Apothecaries' Hall, Dublin, explaining that one candidate was exempted from surgery at the July, 1902, final examination on the ground of his having passed in that subject at the Royal College of Surgeons of England. He believed it was the only instance of the kind; the Apothecaries' Hall, Dublin, had treated it as an exceptional case; but notice should be taken of the matter for this reason that it was believed generally that the final examination should embrace the three subjects of medicine, surgery, and midwifery, and that examination and passing by a licensing authority other than that conducting the final examination in any one of the three subjects were contrary to law. A custom, presumed to be sanctioned by the General Medical Council, might spring up if particular note of this special case was not made.

Mr. BROWN: Well, what action does the Council propose to take?

Mr. TICHBORNE, representative of the Apothecaries' Hall, Dublin, explained that the candidate in question had his pass in surgery from the Royal College of Surgeons of England. He might have registered on the single qualification, but he wished more and on coming up in Dublin he had explained that he could not complete until his pass in surgery was recognised. On his passing in the other two subjects in Ireland the General Medical Council registered him.

Sir CHARLES BALL hoped that opportunity would be found this session—none could be obtained last session—to discuss results as shown in Table A. With regard to the returns from the Royal Colleges of Physicians and Surgeons of Ireland he noticed that the explanation attached to them contained the usual Irish "bull"—viz., "Candidates who presented themselves in *all* the subjects but who omitted *some*."

Sir VICTOR HORSLEY wanted to know why they had no returns from the army.

Dr. MACALISTER: I have not received any.

Dr. HERON WATSON: They come separately.

The motion by Dr. MACALISTER was agreed to.

Dr. HERON WATSON then moved :—

That the thanks of the Council be conveyed to the Director-General of the Medical Department of the Royal Navy and to the Under-Secretary of State for India, respectively, for the returns which they have respectively again furnished to the Council, with the request that these returns may in the future continue to be furnished to the General Medical Council.

Dr. MCVAIL seconded this proposal which was at once agreed to.

The Income of the Council.

The PRESIDENT said that in a by-gone session he had made a suggestion to either the Council itself or to its Financial Relations Committee that it would be advisable to have a memorandum on the subject of the Council's income framed for submission to the Lord President of the Privy Council, so that his lordship might have before him information as to the exact financial position of the General Medical Council and with the very valuable assistance of the General Registrar a statement of the kind desired had been drawn. But was there any action to be taken on it? Sir Christopher Nixon had informed him that he intended to move that the memorandum be referred to the committee.

Sir C. NIXON wished to carry out that intention, his object being to economise the time of the Council. He moved—

That the memorandum of the President on the present inadequacy of the income of the Medical Council be referred to the Financial Relations Committee for their consideration and report.

Dr. MCVAIL seconded this proposal which was agreed to.

The memorandum as received by the Council was in the following terms :—

MEMORANDUM ON THE PRESENT INADEQUACY OF THE INCOME OF THE MEDICAL COUNCIL SUBMITTED BY THE PRESIDENT FOR THE CONSIDERATION OF THE COUNCIL.

It is submitted for consideration that since the establishment of the Medical Council in 1858 the conditions under which its duties to the State, the public, and the medical profession are discharged have become materially changed. The Legislature in 1858 had within its purview the discharge by the Council of certain functions that were comparatively limited in their scope and it apportioned for its maintenance a source of revenue which was then adequate. The Act gave power to the Council to exact a fee not exceeding £5 from all medical practitioners who should be entered on the Medical Register after Jan. 1st, 1859, but under altered conditions this source of revenue is no longer sufficient. The size of the Council has been increased and the range of its duties has been extended. By the Act of 1858 the Council was made to consist of 24 members, including the President. By the Act of 1886 eight members were added—viz., five elected by the profession in the three divisions of the United Kingdom, two additional by the Scottish Universities, so that each university might have separate representation, and one by the Victoria University. As, however, it was enacted at the same time that the Crown should in future be represented by five members instead of six, and the President be selected from among the members of the Council, the net increase was reduced to six. By a more recent Act, which gave a member to the University of Birmingham, this increase was raised to seven, while the contemplated establishment of additional Universities at Liverpool and Leeds renders it possible that two more members will be given seats and the size of the Council increased from its present 31 to 33, as against its original number of 24. The extension in the Council's duties is quite as noteworthy as that of its membership.

Under the Act of 1858 power was given to visit the examinations of the various licensing bodies and this was exercised to a considerable extent, but the Act of 1886 added to the existing power of visitation that of inspection. To insure the efficiency of the qualifying examinations in medicine, surgery, and midwifery, inspection was raised into a paramount duty, the due discharge of which has called for the constant consideration of the Council. The salary of a regular inspector has to be provided and although the members of the Council who are associated with him in his work as visitors do not receive fees and are only repaid their actual outlays the duration of the sittings of the Council, and consequently its expenses, are increased from the time which has to be given to the consideration of the reports of the inspector and visitors.

The supervision of education in the subjects of public health and the control of the examinations for diplomas qualifying for practice as medical officers of health were fresh duties assigned to the Council by the Act of 1886. Much time has had to be devoted to the consideration of these subjects and a separate system of inspection has been established in connexion with them. The practice has also become more frequent of late years for the Government departments to refer to the Council for its advice various questions bearing on the relations of the medical profession to the public. The professional knowledge of the Council has always been gladly placed at the disposal of the Government, but attention cannot be given to a variety of subjects without the expenses of the Council being materially increased through the time expended in their consideration and the charge incurred in printing. As an illustration it may be mentioned that in 1898 a special

session of two days, costing £842, was necessary for the consideration of the Midwives Registration Bill referred to the Medical Council by the Lord President of the Privy Council, in addition to which much time had to be devoted to proposed legislation on the subject during several previous years and subsequently until the passing of the Midwives Act in 1902.

In 1878 fresh duties devolved on the Council in consequence of the administration of the Dentists Act being intrusted to it and additional work requiring the expenditure of much thought and time had to be undertaken. No burden of a financial character was, however, placed on the Council by this legislation, as separate funds were allotted for the carrying out of these new duties. All expenses arising from this branch of its work have, therefore, been eliminated as far as possible from the calculations that follow. As the result of this extension of the Council's duties, it necessarily follows that its sessions have been lengthened and multiplied. If the period before the passing of the Dentists Act of 1878 and the one subsequent to it be compared, this at once becomes apparent. Taking the former period of 20 years, from 1858 to 1877, there were only four occasions in which it was found necessary for more than one session to be held during the year and the annual average number of days occupied with business was nine and two-fifths; during the latter period of 25 years, from 1878 to 1902, there were only three years in which it was not necessary to hold at least two sessions and the annual average number of days occupied was 13, giving an annual increase of three and three-fifths days. The financial results of the extension of the Council, both in its size and in the range of its duties, may now be considered. To institute a comparison between the expense incurred in the period before fresh legislation and that subsequent to it, two decades have been taken—viz., that immediately preceding the passing of the Dentists Act in 1878—viz. from 1869 to 1878, and that terminating last year—viz. from 1893 to 1902.

During these respective decades the annual average expenditure for certain items was as follows:—

—	Fees and expenses for the attendance of members.	Printing.	Law expenses.	Election expenses.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1869-1878	1931 5 3	762 6 6	54 4 11	—
1893-1902	3374 3 4	1194 5 4	666 5 4	185 19 0 From 1886-1902.
Showing an average annual increase of ...	1442 18 1	431 18 10	612 0 5	185 19 0

The cause of the increase in the fees to members has been sufficiently indicated to be the increase in the number of members and not any addition to the fee sanctioned by the Act of 1858 to be paid with the approval of the Treasury to individual members. The increase in the item of printing expenses has followed inevitably from the extended nature of the Council's work and in part also from the constantly increasing size of the registers that are to be maintained and published. The very noticeable increase in legal expenses shown in the above table requires the explanation that up to 1886 the Council did not regard itself as a prosecuting body and the disciplinary sections of the Act were only occasionally brought into operation. Such legal expenses as had been up to that time incurred had been mostly in connexion with questions of education and registration.

The widespread evils to the public resulting from unqualified practice—evils encouraged largely by the, at that time prevalent, employment by registered medical practitioners of unqualified assistants—then demanded attention and large sums have since that date been paid in legal expenses for the public benefit in successfully lessening such of those dangers as arose from the wrong conduct of members of the profession. Although the improper practice of employing unqualified assistants has been largely put a stop to, other forms of professional misconduct have arisen which have called for the attention of the Council and there is no prospect of a cessation of expenditure in connexion with the exercise of its disciplinary functions. An altogether new expense was introduced in 1886 by the principle of direct representation which necessitated the holding of elections. It was contemplated no doubt by the Legislature that these would recur only once in five years, but owing to vacancies occurring at intervening times caused by death or resignation six elections have been necessary up to the present date, involving altogether an expenditure of £3161 5*s.* 11*d.*, or £185 19*s.* per year, if spread over the whole period as an annual charge.

Under the head of General Expenditure no increase in the expenditure of the Council that is worth taking into consideration has been incurred; the staff has not been increased for the last 25 years and the salaries at the present time are no larger than were paid in 1885. Bringing together the foregoing figures the total average increase of expenditure over that which was sufficient 29 years ago is £2672 16*s.* 4*d.* per annum and the position of the Council is rendered worse by the fact that its income is not growing. Practically the income of the Council and its branches is derived from registration fees. Owing to the efforts that the Council has made during recent years to benefit the public by improving medical education and by materially raising the standard of examination both in general and professional subjects the number of persons entering the profession and the fees for registration paid by them have not increased. If we take the last two periods of ten years—viz., from 1883 to 1892 and from 1893 to 1902—while 13,644 practitioners were registered in the first period only 13,565 were registered in the latter period—a decrease of 79. The income, therefore, from fees so far from increasing is somewhat diminished and is not likely to rise in the near future, seeing that there has been a fall annually in the number of medical students for some years past. The average number of students entering during the period from 1879 to 1893 was 1708, but owing to the higher standard demanded and the increased length of a medical course the average number entering during the period 1898 to 1902 was only 1552—an average decrease of 156 a year.

The foregoing facts show that the financial position of the Council and its branches is extremely unsatisfactory. There is still a balance of funds in hand, for during the first few years after the system of registration was introduced a large sum was received in fees and put aside as surplus income. Out of this fund the Council has purchased the freehold of its premises and adapted them to its use by an outlay of £25,670 and it has remaining in the hands of the Branch Councils of England and Scotland the sum of £15,466 1*s.* 2*d.* in Consols; but if the present state of things continues this reserve fund must before long be exhausted. Up to the year 1895 the Council's annual income was, with few exceptions, sufficient: since that year a regular deficiency has been annually disclosed as follows:—

	£ s. d.
1896	683 4 9
1897	1,538 9 8
1898	2,358 11 11
1899	1,573 14 5
1900	1,037 11 1
1901	1,506 12 0
1902	1,332 18 1
	10,033 1 11

Annual average deficit = £1433 5*s.* 11*d.*

The Council would desire to emphasise the before-stated causes that have brought about this unsatisfactory financial position. By the action of Parliament in adding to the number of its members without at the same time providing for an addition to its income, and by the increase of its duties causing a necessary prolongation of the sessions, the Council is rapidly expending the savings of its early years and unless other sources of income are provided it will soon not be able to meet the annual expenditure. It is strongly urged that the efficiency of a body established to perform important services to the public should not be impaired by subsequent legislation superimposing, without corresponding increase of income, duties of a costly nature which were not foreseen when its source of income was first fixed and fixed in such a way that in proportion as the Council does its duty in securing by education and examination a highly trained class of practitioners to serve the public and the State, it lessens its source of revenue.

It would not be for the welfare of the community that the long exerted efforts of the Council to promote the efficiency of the profession should be relaxed, nor would it be desirable that its vigilance should be less exercised in the discipline of the profession, however costly this work may be. A jurisdiction somewhat analogous to that of the Medical Council is exercised over the lower branch of the legal profession by the Incorporated Law Society, which superintends legal education and administers discipline. Its income is derived from fees which, though small, amount in the aggregate to a larger sum than is at the disposal of the Medical Council, but it has been recognised by the Government that it should be assisted in the discharge of its disciplinary functions and the Treasury of late has made an annual grant in aid for this purpose. It is suggested that were a similar grant made to the Medical Council sufficient to defray the expenses of this branch of its work its financial position would be assured. During the last few years the disciplinary business of the Council has cost annually some £1479 (made up of increased length and cost of sessions £929, legal expenses £500, and printing £50). Were the Council relieved of this charge the expenses attending the exercise of its other functions could be defrayed out of its present income mainly derived from registration fees.

WM. TURNER, President.

May 1st, 1903.

In Camerâ.

The next items of business on the day's programme were: (1) To receive *in camerâ* a recommendation by the Penal Cases Committee as to a prosecution; (2) to receive *in camerâ* a report from the President as to a case mentioned *in camerâ* on Nov. 28th, 1902; and (3) the President to make reference to a letter from Sir John Tuke on a penal case. The public accordingly were asked to withdraw and were not admitted to the council chamber during the rest of the sitting, which, in accordance with a resolution passed at an earlier stage of the proceedings, was not prolonged many minutes after four o'clock in the afternoon.

FRIDAY, MAY 22ND.

The Council resumed to-day, Sir WILLIAM TURNER, the President, being in the chair.

Proceedings *in camerâ*, which the President explained had not been concluded on the previous day, were continued.

The Dentists Register.

Mr. TOMES, on the admission of the public to the chamber, called attention to the inaccuracy of the Dentists Register by reason of its (1) not including all registrations; (2) in respect that a number of names had gone off it, though the persons bearing them were still living and practising at the same address; and (3) that a considerable number of names of persons who were dead still remained on the Register. He thought communication with the Pharmaceutical Society and other bodies might help to get the required accuracy.

The REGISTRAR explained the steps that were taken by him to secure accuracy and assured the Council that all voluntary

help which they could obtain was availed of. He certainly should be glad to give attention to anything brought to his notice.

Apothecaries' Society of London.

On the motion of Sir HUGH BEEVOR, seconded by Mr. BRYANT, it was agreed—

That Mr. Peyton Todd Beale, F.R.C.S., be appointed an assistant examiner in surgery to the Apothecaries' Society of London for a period of four years, vice Mr. C. Stonham, F.R.C.S., who retires by rotation.

Sir George Duffey's Illness.

Dr. MACALISTER moved :—

That in consequence of the illness of Sir George Duffey, the Council's inspector of final examinations, the inspection of the examinations of the Scottish universities be postponed till next year.

He thought it was advisable to pass such a motion, so that Sir George Duffey might have the opportunity to finish the cycle of inspection and let the Council have reports that would be conformable. There was no great hurry in regard to the Scottish universities which he considered could safely be trusted to go on without Sir George Duffey's visitation for another year.

The motion was seconded by Dr. NORMAN MOORE.

Sir CHARLES BALL remarked that if the Council passed such a motion it would very much gratify Sir George Duffey who felt deeply his present inability to complete the work which the Council had intrusted to him.

After some words of appreciation of Sir George Duffey's work and services from Dr. BRUCE

The motion was agreed to.

Dr. ATTHILL, on behalf of Sir George Duffey, thanked the Council for coming to such a resolution.

Restoration to Medical Register.

It was moved by Dr. MACALISTER, seconded by Mr. BRYANT, and agreed to :—

That the following report from the Executive Committee in regard to a suggested change in the Standing Orders be received and entered in the minutes—

The Executive Committee have considered the following motion which on Dec. 2nd, 1902, was referred to them by the General Council with a request that they should consult the legal advisers of the Council on the subject : "That in the Standing Orders for the restoration of a name to the Medical Register, Chap. XVII., Clause 2, Subclauses 3, 4, and 5, the words Penal Cases Committee be substituted for the words Executive Committee." The Executive Committee, having consulted Mr. Muir Mackenzie on the subject of the motion, are advised that having regard to the special function of the Penal Cases Committee as defined by Chapter IX., Section 5, of the Standing Orders and to the powers of the Executive Committee under the Medical Acts, applications for restoration after penal erasure are most appropriately dealt with by the latter committee. The Executive Committee are therefore not prepared to recommend that the proposed change should be made in the Standing Orders.

Dental Business.

The REGISTRAR read the following report from the Executive Committee on the dental business transacted by it since the previous session of the Council.

1. The prescribed conditions having been duly fulfilled in each case, the names of the under-mentioned persons have been restored to the Dentists Register, from which they had been erased in conformity with the provisions of Section 12 of the Dentists Act, 1878: Alfred G. Annette, Walter Bennett, William V. Corbet, Henry W. Edmondson, Charles H. Fentiman, Joseph Hanreck, Frederick J. Lea, William Morris, Matthew H. Nisbet, Lawrence Read, George W. Roberts, Thomas R. Smart, and Francis Watts.

2. A question was considered by the committee from a medical practitioner respecting the position of practitioners in regard to the administration of anæsthetics for registered dentists acting for dental companies and they answered the inquiry by stating that the only answer they could give was to call his attention to the resolution of the Council in regard to the administration of anæsthetics.

3. The committee received from the Colonial Office an Act relating to the practice of dentistry in South Australia and referred it to the Dental Education and Examination Committee for their information.

4. A communication was also received from the Colonial Office seeking information as to the position of British dentists in Germany and the committee replied that : "Inasmuch as under the Dentists Act no provision is made for the establishment of reciprocal relations with foreign countries the Council has had no occasion to inquire into the privileges (if any) accorded to British dentists in Germany. German dental qualifications are not recognised as conferring any rights in this country. The committee would be obliged to receive from the Colonial Office any information on the subject which may be obtained through the Foreign Office."

5. The committee further received from the Colonial Office an Act to provide for the registration of dentists to practise in Queensland and referred it to the Dental Education and Examination Committee for their information.

6. They considered a complaint from a medical practitioner in regard to continued dental advertising by a registered dental student.

7. They considered also an application made on behalf of a Canadian dentist for registration in the Dentists Register and referred the matter to the Dental Education and Examination Committee for consideration and report.

8. The committee have also had under their consideration an application for registration under Section 37 of the Dentists Act by a dentist who was a pupil at the time of the passing of the Act.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, this report was received and entered on the minutes.

Examination in Chemistry, Physics, and Biology.

Sir VICTOR HORSLEY had the following notice on the paper :—

To call attention to the report by the visitors of the examination in chemistry, physics, and biology of the Conjoint Examining Board in England, of the Royal College of Physicians of London, and the Royal College of Surgeons of England, together with the remarks by the bodies inspected, and to move a motion thereon.

He said that before going on with his motion he should like to ask Mr. Bryant whether he was or was not going to present a report from the Examination Committee.

The PRESIDENT : There has been laid on my table this morning a report by the inspector and visitor of the examination of the Apothecaries' Society. That is a complete report of that particular examination.

Mr. BRYANT said that the matter was considered by the Examination Committee yesterday afternoon and it did not come to any definite conclusion about it. It certainly had not prepared a report to the Council, but if the Council was really desirous that some report should be brought forward the committee would be willing to do so. As the spokesman of the Examination Committee he had been asked to put to the Council the question whether it did really wish a report to be presented at the present time. In thinking the matter over last night he felt that the committee was in difficulty. In the report that had been presented to the Council the inspectors said, "We have not been able to compare this examination with any others of its own class, so that we are contrasting it with an ideal standard existing in our own minds." The inspectors should have something by which to make a standard of comparison. He understood that a report had been presented with reference to the Apothecaries' Hall, Dublin; he also understood that the inspectors had reported on the Scottish examination, and it occurred to him that now that these gentlemen had more information it would be more satisfactory if they could kindly give the Council a report with regard to the other bodies which they had already visited. He would like to propose that as the Irish body should be examined in June the Council should ask the two inspectors and visitors to report to it on the four bodies which they would have inspected. Then the Examination Committee should have something good to report upon; and he should have no difficulty in presenting a report which he trusted would be acceptable to the Council. When this report was first presented to him as chairman of the Examination Committee he felt that as the representative of one of the Royal Colleges it would be very difficult, if not quite impossible, for him to give an honest report bearing upon it. In the answers——

The PRESIDENT : You had better not go into the merits of the case at present. I understand that you are now giving your reasons for delay.

Mr. BRYANT : Very well; I shall not do so. I will simply conclude by moving :

That the report be referred back to the visitors for further consideration and report, in view of the fact that subsequent to the date of their report the visitors have had an opportunity of comparing this examination with others of its own class.

Sir VICTOR HORSLEY : That is not an answer to my question at all.

Sir W. THOMSON : This motion by Mr. Bryant is not a proper one. Sir Victor Horsley has asked a definite question with reference to a specific performance by the Examination Committee. We have not got an answer, but instead of it Mr. Bryant has submitted a motion which is an entirely different thing.

Mr. BRYANT : I did answer the question of Sir Victor Horsley, though, perhaps, not directly. I said that the committee had not prepared a report upon this matter, but that it was willing to give a report if it was the express wish of the Council. I spoke as chairman of the Examination Committee and in that capacity proposed this motion.

Sir VICTOR HORSLEY : Really that is not an answer to my question. The standing orders provide that these reports shall go to the Examination Committee and that the Examination Committee shall report to this Council. That is the procedure. Mr. Bryant, instead of carrying out the usual procedure, took upon himself not to prepare a report on behalf of the Examination Committee for presentation to the Council to-day. Having done so he has put the Council

in an entirely false position. Now I have asked for a direct answer to a direct question. I wish to know finally whether a report is going to be presented or not to this Council in the ordinary way during the present session?

Mr. BRYANT: I have no report to present from the Examination Committee. But I have already said that it is willing to give a report if the Council specially ask for it.

Sir VICTOR HORSLEY: It is not a question of willingness. It is your duty. I want to know whether you are going to do your duty this session or not.

Sir JOHN TUKE: May I ask how long this report has been in the hands of the committee?

Mr. BRYANT: I can hardly say. It has been in the hands of the Council for some months, but it has not been in the hands of the committee for so long. The committee did not fully recognise that it would have to report upon it. When the resolution was passed last session it was fairly understood that this report would not be considered until the other reports were before the committee.

Sir VICTOR HORSLEY: No, no. I submit that six months is ample time for the chairman of the Examination Committee to have prepared a draft report which it was his duty to present to the members of the committee yesterday.

Dr. FINLAY said the point was whether the Council should wait until all the reports were complete and consider them together.

Dr. YOUNG formally seconded Mr. Bryant's motion.

Dr. WINDLE said that he, as one of the inspectors, should absolutely refuse to take back the report. If the motion was agreed to he should return the report identically in the same words, letter for letter. If it was modified in any way it might be modified in a way which perhaps Mr. Bryant did not desire. But he absolutely refused to take it back.

Mr. BRYANT asked leave to withdraw his motion.

Sir VICTOR HORSLEY objected to the motion being withdrawn until he had received an answer to his question.

Dr. NORMAN MOORE said that he could not vote for the motion. The question before the Council was entirely one of business and expediency. Could time be saved by discussing this report in common with other reports? or should they arrive at the truth of the subject by following the procedure suggested by Sir Victor Horsley? There was a great deal to be said on both sides of the question. No self-respecting inspectors could take back their report with the view of modifying their statements. It was not the function of the inspectors to correlate reports. That was the duty of the Examination Committee. He thought that the Council would save time if it were to discuss all these reports together and therefore he was opposed to Sir Victor Horsley's proposal.

Sir VICTOR HORSLEY: I have made no proposal whatever.

Dr. NORMAN MOORE: Well, I ought to have said notice of motion. I think it would be a wrong course to send this matter back to the inspectors.

Sir C. NIXON urged on the Council to allow the motion to be withdrawn.

On a division leave to withdraw was granted by 18 votes to 7.

The PRESIDENT: Well, we have come back to the point at which we started; do you propose anything, Sir Victor?

Sir VICTOR HORSLEY: Certainly. I move—

That the Examination Committee be instructed to report during the present session on the report by the visitors of the examination in chemistry, physics, and biology, of the Conjoint Examining Board in England and of the Apothecaries' Society of London.

This proposal was seconded by Dr. HERON WATSON and was carried, 20 members out of 31 voting for it.

Apothecaries' Hall, Dublin.

Three reports on the final examinations of the Apothecaries' Hall, Dublin, were read by Mr. BRYANT who presented them as chairman of the Examination Committee. The first was in respect to an examination in July, 1902 (the inspector of which was Dr. W. P. Herringham), and was as follows:—

Four candidates presented themselves for this examination. One had been registered as a medical student in 1884 and had passed at the Royal College of Surgeons of England all his examinations except that of medicine and midwifery. The inspector reports that he passed creditably in those two subjects and thus became entitled to the diploma of the Hall 18 years after his registration as a medical student. This recognition of a final subject passed before a different licensing body is quite irregular in view of the opinion expressed by the Council's legal adviser that "the examination must be one examination in the sense that one medical authority or combination of authorities must conduct the whole examination of the candidate—that is, that he must be examined in all three subjects by one medical authority or combination of authorities." A second candidate having passed in medicine at the Hall received his Licence after passing in surgery and midwifery. The third candidate presented himself in medicine, surgery, and midwifery. He passed in medicine and midwifery but failed in surgery. The fourth candidate, who presented himself in medicine, surgery, and midwifery, failed to pass in any. Two of the four candidates received Licences.

The inspector reported that the examination was thoroughly and satisfactorily conducted and the examiners in surgery were satisfied with the *bona fides* of the method of examination and with the standard of knowledge required. At the conference of examiners the secretary of the Hall reported that an amended form of regulations for conducting these examinations was agreed to and that the changes made were based on recommendations suggested from time to time by the inspector and examiners.

Dr. MACALISTER reverted to the case of very exceptional treatment of one of the candidates referred to in the foregoing, which he had called attention to on the previous day, and moved—

That the President be requested to call the attention of the authorities of the Apothecaries' Hall, Dublin, to the case referred to in the Examination Committee's report on the July (1902) examinations; and to state that in view of the legal interpretation placed by the Council's advisers on the terms of the Medical Act, 1886, the Council regards the course taken by the Apothecaries' Hall as irregular.

Mr. BRYANT seconded this motion.

Mr. BROWN pointed out that the case in question was a very unusual one. He thought that another such was not likely to arise; the candidate had passed his examination in surgery before the passing of the Act of 1886 and he (Mr. Brown) had yet to learn that that Act was retrospective.

Dr. MCVAIL asked Mr. Bryant if the Royal College of Surgeons of England gave a certificate for the "final" if a candidate passed in surgery at their examination.

Mr. BRYANT: I do not think so.

Dr. MCVAIL: Then how did this man get one?

Mr. TICHBORNE was not sure that the document produced by the candidate was a certificate.

Mr. BROWN thought that in that case consideration of Dr. MacAlister's motion should be postponed for the production by Mr. Tichborne of the documents relating to the case. He moved accordingly.

Mr. JACKSON seconded the proposal which was agreed to.

The second report read by Mr. BRYANT related to an examination in October last. It was:—

There was but one candidate for the third examination, who had failed in medical jurisprudence in July. In this examination he passed. The secretary of the body visited stated that "the authorities of this Hall do not propose in the future to hold an ad-interim examination for one candidate," and with the conclusion this committee cordially agrees.

The third report of the series was connected with examinations in January last which were conducted by the inspector, Dr. W. P. Herringham, and the assistant examiners in surgery, Mr. Alexis Thomson and Sir Henry Howse. This report stated:—

In the first examination there were two candidates. One passed; the other was rejected in chemistry. In the second examination there was one candidate who passed. In the third examination there was one candidate who passed in pharmacy and pathology, the subjects in which he presented himself. In the final examination there were three candidates, all of whom had been up before. All failed to pass. The inspector reported "that the examination was thoroughly and satisfactorily conducted." The examiners in surgery "were satisfied with the methods by which the examination was conducted and with the standard of knowledge required." With such approval this committee is satisfied.

All three reports were ordered to be entered on the minutes.

The University of Dublin.

MR. BRYANT next read reports on the final examinations in the University of Dublin in May and June, 1901, and November, 1902, the Council's visitor being Mr. Bryant and its inspector Sir George Duffey, M.D.

The main report—that on May and June examinations—stated:—

The visitor and inspector report that the final or degree examinations of the University of Dublin are "sufficient." They draw attention to the fact that since the last visitation material changes have been made in the examinations, particularly as affecting candidates under the five years' course; and that oral examinations are now held in medicine and in pathology for candidates for the M.B examination under the four years' course. There is still no oral examination in surgery for candidates for the B.Ch. degree under the four years' curriculum. It is true that the number of these candidates is steadily diminishing, but five such candidates presented themselves in May last, and so long as these candidates continue so to apply for admission to the Medical Register their examination should be conducted in conformity with the recommendation of this Council.

Both the visitor and inspector attended all the examinations between May 20th and 31st. The inspector alone attended the examination in midwifery and gynæcology, the visitor's presence being required at the General Medical Council. The final examinations in clinical medicine and surgery were generally quite satisfactory, although it was thought that the arrangements for conducting the examination in ophthalmic surgery might be improved, and that in

operative surgery assistance could be given by a past candidate to a present candidate in his operation without requiring the presence of all the candidates during the entire examination—a practice that seems to be unnecessary. In the clinical examination in surgery both the visitor and inspector would have liked to see several doubtful candidates, who had shown weakness in the two cases allotted to them, further tested with a third or fourth case. In the examination in clinical medicine this method was freely used and with marked success.

It is satisfactory to note that the time formerly allowed for answering the written questions and objected to at the former visitation as being too short has for some subjects been extended. But in other subjects—viz., surgery at the B.Ch. examination and in materia medica and therapeutics and in forensic medicine and hygiene—the limit is still much under the average time (half an hour for each question) recommended by this Council.

In respect to the November examinations the Examination Committee reported:—

Section B of the first part of the final examinations of the University of Dublin was visited and inspected in November, 1902, at the express wish of the Council. The examination lasted four days; there were 21 candidates, one of whom retired after presenting himself at the oral examination in surgery. Every candidate is now orally examined in the presence of two examiners. The professors agree with the expressed opinion of the visitor and inspector that the supervision of the *viva voce* examinations is inadequate and recommend the board to take steps to make it efficient. Every written paper contained four questions and two hours were allowed to answer each paper. The oral examinations generally occupied from 10 to 15 minutes for each candidate, but there was no fixed time. The oral examination in medicine was conducted by the external examiner in the presence of the assessor, who is one of the professors of medicine in the university. The answering generally was poor.

The oral examination in surgery was sound and practical. Both examiners examined each candidate and there were many museum specimens for use. The examinations in pathology and medical jurisprudence were altogether good. Of the 20 candidates who completed the examination 13, or 65 per cent., passed, and seven, or 35 per cent., were rejected. As a final conclusion, this supplemental visitation and inspection of November confirms the general opinion expressed in the report of May and June last, when the second part of the final examinations was visited and inspected: That the final examinations of the University of Dublin are sufficient.

These reports were received and entered on the minutes. An explanation in regard to faulty examination of one of the candidates was made by Dr. LITTLE and some discussion arose on a question which evolved as to the desirability of examining candidates rejected on a first examination who came forward on a second occasion without having in the interval taken the opportunity to study further. This matter was focussed by Mr. BROWN who, seconded by Sir VICTOR HORSLEY, moved:—

That in the opinion of this Council it is undesirable that candidates who may have failed to obtain the minimum number of marks qualifying for a pass should be re-examined without bringing evidence of further study.

But discussion showed that it would be undesirable to press such a proposition and Mr. Brown withdrew his motion.

Election of Committees.

After agreeing to curtail the Saturday sitting by an hour so as to let committees have more time to prepare their reports the Council proceeded to ballot for the membership of the Executive Committee and the Penal Cases Committee. At the request of the PRESIDENT, Mr. Tomes and Dr. Lindsay Steven acted as scrutineers for ascertaining the result of the voting for the election of the Executive Committee and Dr. Atthill and Professor McCall Anderson as scrutineers for ascertaining the result in the election of the Penal Cases Committee. The President announced that the Executive Committee had been found to be constituted as follows: The President *(ex-officio)*, Mr. Bryant, Dr. Payne, Dr. MacAlister, Dr. Pye-Smith, Dr. Heron Watson, Sir Charles Ball, and Sir Christopher Nixon, but that Sir John Batty Tuke and Dr. McVail had obtained the same number of votes for the second seat to be filled by a member belonging to the Branch Council for Scotland. The President next announced that the Penal Cases Committee had been found to be constituted as follows: The President *(ex-officio)*, Mr. Bryant, Dr. Windle, Mr. Tomes, Sir Victor Horsley, Dr. Heron Watson, Sir C. Nixon, and Sir W. Thomson, but that Sir John Batty Tuke and Dr. Finlay had obtained the same number of votes for the second seat to be filled by a member of the Branch Council for Scotland.

Sir JOHN TUKE having asked that his name might be withdrawn in favour of Dr. Finlay, the PRESIDENT declared Dr. Finlay elected.

Six o'clock having arrived the election of a second representative for Scotland on the Executive Committee was postponed till Saturday.

The Council adjourned.

SATURDAY, MAY 23RD.

The Council resumed at two o'clock this afternoon, Sir WILLIAM TURNER, the President, being in the chair.

The Executive Committee.

The PRESIDENT called attention to the tie in the voting for a representative of the Scottish Branch on the Executive Committee. At the conclusion of yesterday's business, he said, and when a considerable number of members of the Council were not in the room, it was his duty to state that there had been a tie between Sir John Tuke and Dr. McVail. Dr. McVail was not in the room when he made that statement.

Dr. MCVAIL said that he would have great pleasure in giving way to Sir John Tuke, the chairman of the Education Committee, who had rendered great services to the Council in the House of Commons. He considered it an honour to receive an equal number of votes with Sir John Tuke.

The PRESIDENT then declared that Sir John Tuke had been elected the second member of the Scottish Branch on the Executive Committee.

Sir JOHN TUKE thanked his old friend, Dr. McVail, for his great generosity in retiring in his favour.

The Pharmacy Bill.

Sir HUGH BEEVOR asked the President whether his attention had been called to the provisions of the Pharmacy Bill being promoted in the present session by Mr. Lough, M.P., and to the fact that the provisions of the Bill (*inter alia*) penalised any person other than a pharmaceutical chemist from dispensing medical prescriptions in a shop, the Bill containing no definition of the word "shop" and no exemption of registered medical practitioners from its provisions; and, further, whether in view of this, the Council should not take some steps in reference to this or any other Bill promoted on similar lines, to see that the interests of medical practitioners were properly protected.

The PRESIDENT said that he was indebted to Sir Hugh Beevor for sending him a copy of the Bill. He had gone through the Bill and he thought that before he could attempt to give anything like an answer to the question now submitted to him it was necessary that he should look into the Pharmacy Acts which the Bill proposed to amend so that he might see what the differences were between the Bill and those Acts. There were two Acts of Parliament bearing upon pharmaceutical chemists. One was the Act of 1852 which regulated the qualification of pharmaceutical chemists. That Act had only to do with pharmaceutical chemists and medical practitioners were expressly excluded from it. Then there was the Act of 1868 which was an Act to regulate the sale of poisons. The principal enacting clause in that Act was as follows: "It shall be unlawful for any person to sell, or keep open shop for retailing, dispensing, or compounding, poisons, or to assume or use the title chemists or druggists." But subsequent sections of that Act reserved the rights of legally qualified apothecaries, Members of the Royal Colleges, and wholesale dealers in supplying poisons in the ordinary course of dealing. In Section 17 occurred this expression: "Nor shall any of the provisions of this section apply to any poisons supplied by a legally qualified medical practitioner to his patients." But there was a subsequent Act passed in 1869 which set forth that "nothing contained in the first 15 sections of the recited Act of 1868 shall affect any person who has been registered as a legally qualified medical practitioner before the passing of this Act and the said clauses shall not apply to any person who may hereafter be registered as a legally qualified medical practitioner." He thought he might say that these three Acts did guard the interests of the medical profession and the question naturally arose whether in the Bill now before Parliament the interests of the medical profession were still being preserved. He would point out that the Bill was a Bill to alter and to amend the Pharmacy Acts of 1852 and 1868 and the question arose—Would the sections of these Acts to which he had referred still be in active operation or be annulled by the passing of this Bill? That was a legal question and he did not profess to answer it. But there were one or two points in the Bill to which he might refer. The Bill applied to Great Britain—England, Scotland, and Wales—but Ireland was expressly excluded. The definition clause was important: "In this Act 'the Society' shall mean the Pharmaceutical Society of Great Britain: 'registered person' shall mean a pharmaceutical chemist or a chemist and druggist; 'poison' shall

mean a poison within the meaning of the Pharmacy Act, 1868; 'registrar' shall mean the registrar of the Society." Section 2 of the Bill seemed to him to enlarge very materially the Pharmacy Acts in a very important direction:—"It shall be unlawful for any person or any company, firm, co-partnership, or body of persons, to keep any open shop or shops for the retailing, dispensing, or compounding of poisons or of medical prescriptions unless each shop shall be *bonâ fide* conducted by a registered person." That was a very important provision. The existing Act was for regulating the sale of poisons, but by this Bill not only was the sale of poisons to be regulated but the compounding of medical prescriptions also and the clause went on to say: "or to permit or suffer in such shop any poison to be retailed or any medical prescription to be retailed, dispensed, or compounded otherwise than by, or under the supervision of, a registered person." And a "registered person" was a person registered under this Act or under the Pharmacy Act—namely, a pharmaceutical chemist or a chemist and druggist, not a medical practitioner. That, he submitted, was a very serious inroad on the rights of the medical profession, and, so far as he could see, there was no provision in the Bill to safeguard medical practitioners. The question very materially affected the Society of Apothecaries and he should like to know whether that society was not prepared to get a legal opinion on the Bill. He did not know why the General Medical Council should go to the expense of obtaining a legal opinion in the first instance. He thought it was rather the Society of Apothecaries that should do so.

Sir HUGH BEEVOR said that he had brought the subject before the Council as a matter of public interest. He was not asked to bring it forward by the Apothecaries' Society but he considered that it ought to come before the Council in the interests of the profession.

The PRESIDENT said that there was one branch of the profession which was peculiarly affected—namely, the Society of Apothecaries—and he thought it might help the Council if the Society of Apothecaries were to get a legal opinion as to the exact signification of the Bill and how far the rights of medical practitioners were affected by it.

Sir VICTOR HORSLEY said that the Bill arose out of the report of a departmental committee. The British Medical Association quite recognised that the Bill affected the whole profession and he thought that it was a very proper matter to be brought before the Council.

The PRESIDENT: I am not objecting to the raising of the question here, but I think a legal opinion should first be got by the Society of Apothecaries.

In answer to a question by Dr. HERON WATSON,

Sir JOHN BATTY TUKE said there was not the slightest chance of the Bill passing this session. It had not reached the second reading and if it ever did it could only do so if unopposed, and even if it were unopposed it would have to go to the Standing Committee on Law, which would be sufficiently occupied for the rest of the session with the Deceased Wife's Sister Bill.

Dr. MACALISTER moved:—

That the President be requested to represent to the Lord President of the Privy Council that in the Bill to alter and amend the Pharmacy Acts 1852 and 1868, now before Parliament, the rights of the medical profession as safeguarded by the existing Pharmacy Acts appear to be encroached upon and to state that in the opinion of the Medical Council this encroachment ought not to obtain the sanction of Parliament.

Sir HUGH BEEVOR seconded the motion.

Mr. BROWN, in supporting the proposal, said that for many years past the Society of Apothecaries of London had been neglecting its duty under the Act. It was its statutory duty to provide qualified dispensers for medical men, but this had not been done and it had allowed the Pharmaceutical Society to come in and to take its place.

Dr. MACALISTER'S motion was agreed to.

Results of Examinations.

Sir CHARLES BALL moved:—

That the report of the Examination Committee upon the desirability of obtaining additional information from the various licensing bodies for use in the preparation of the annual table (*a*) showing results of professional examinations which was received by the Council and entered on the minutes and appears as Appendix XXII. of the volume of minutes for 1902 be referred to the various licensing bodies and that they be requested to inform the Council whether it is practicable to give the information in the form suggested in Table I. of that report.

He said that the annual table gave no information which they could rely on as to the passes and rejections for the simple reason that since 1864, when these returns were first directed to be made annually, the examinations had become so complicated and involved that it was impossible to present the information in a useful form in a table such as that now prepared.

Mr. BRYANT, in seconding the motion, said that the additional information asked for would be very valuable if they could obtain it from the licensing bodies.

The motion was agreed to.

University Representation on the Council.

Mr. JACKSON moved:—

That the Council petition the Privy Council that, in the event of the Victoria University (Manchester) being divided into two or more separate universities, a single representative should represent the whole collectively.

He thought everyone would agree that the Council was sufficiently large to discharge the duties that were imposed upon it and there were various reasons why the membership should not be increased. Whenever any proposal was made for increasing the number of Direct Representatives it was always alleged as a reason against it that the Council was large enough already, that the accommodation was not sufficient, and that additional members would necessarily lead to increased expense, which was very undesirable in the present financial position of the Council. There was a proposal to divide the Victoria University into two or more separate universities and if that was done each of these bodies might desire to have a representative on the Council. There would be a new university for Liverpool and before very long there might be a fresh university for Yorkshire—in fact, universities seemed to be springing up almost like mushrooms and they might all claim to have a representative on the Council. It was not desirable, he submitted, that every new body which was created should necessarily have a member to itself on the Council. They must be content with a portion of a member; otherwise the members of the Council would be increased to undue proportions.

Mr. BROWN seconded the proposal, remarking that if the university representation was to go on increasing the Council would have to make application to the Government for a considerable increase in the number of Direct Representatives. He did not think the time had arrived when newly created universities should be accredited with a member each on the Council.

The PRESIDENT said there were two matters they had to consider in connexion with the foundation of a university and the granting to that university of representation on the General Medical Council. The charter founded the university, but the Privy Council, which granted the charter, had no power to give the university a representative on the General Medical Council. The General Medical Council was a Parliamentary body; it was constituted by Parliament and to introduce a new member on the Council meant a new Act of Parliament. The Privy Council could not do it; Parliament alone could do it. What was done in the case of the University of Birmingham was to apply to Parliament for an Act. The date of the charter was March 24th and the Act received the Royal assent on May 25th, practically two months subsequent to the charter having received the Royal assent. In discussing this question he wished it to be kept clearly before the minds of members that anything which was done in the way of giving an opinion as to a representative to be appointed under a change in the constitution of Victoria University was to be done through Parliament and not through the Privy Council.

Dr. WINDLE said that none of the new universities would be capable of giving a registrable qualification until they obtained a special Act of Parliament.

The PRESIDENT informed the Council that no Bill had yet been introduced. But if a Bill was introduced, to whom should they present a petition—to the Privy Council or to Parliament?

Dr. MCVAIL considered that the discussion of the matter at this moment was altogether out of order. The General Medical Council had simply to administer certain Acts of Parliament and there was nothing in these Acts permitting them to discuss alterations in the law that they might think desirable. If a Bill was introduced into Parliament and sent by the Privy Council to the General Medical Council the latter would then be quite entitled to give an opinion, but he held that they had no right whatever to enter into consideration of possible Acts of Parliament.

Sir JOHN BATTY TUKE agreed that it was hardly in order

to discuss a Bill that did not exist. Should one be introduced he should move in the House of Commons the rejection of the clause giving a separate representation if there was such a clause in it.

Dr. PYE-SMITH asked the President to rule whether the discussion was really out of order.

The PRESIDENT: This is a matter that affects the Council's constitution and I think we have a perfect right to express our opinion on it. If there was a Bill before Parliament we should have a right to petition about it. We believe that a Bill is ready but it cannot be presented until the charter is signed. The charter is not yet signed. Therefore, my ruling would be that we are right in discussing this matter.

Dr. PYE-SMITH said that in that case he was prepared to move an amendment because he thought the motion did not go far enough. He agreed that the number of members already was inconveniently large and it was a great evil to increase it by giving separate representations to any new universities that might arise, say, in Liverpool, Leeds, Bradford, and Bristol, all of which had been spoken of. He moved—

That the President be requested on the first opportunity to urge upon the Government the importance of reducing the number of the members of this Council.

Dr. PAYNE seconded and Dr. MACALISTER supported the proposal.

Sir CHRISTOPHER NIXON said that if Dr. Pye-Smith's amendment meant that the number of members should be diminished by a system of grouping the universities so that one person might represent a group of two or three or four he certainly should oppose it because it was not to be expected that the two chief universities of Ireland would be satisfied with less representation on the Council than they had at present. At the same time he would not object to the adoption of a grouping system in respect to new universities.

Dr. WINDLE did not see any reason why at least the three Scotch bodies giving the same registrable qualification should not be grouped under a single representation. He, however, should oppose any plan to disfranchise any, and especially the younger, universities which had power to give a registrable qualification.

Dr. FINLAY intimated that he should vote against the amendment. With respect to grouping, if they combined the universities and licensing bodies of Scotland would they group together, say, the Universities of London and Oxford? Before the Council committed itself it should have before it some very definite scheme of representation.

Dr. NORMAN MOORE thought that if they had a definite scheme before them they could discuss its details, but merely to talk on the abstract question as to whether the Council should be diminished or increased seemed to him to be a waste of time. He did not regard with apprehension an increase of universities; any such increase was sure to do a lot of good to the country and in his view it would be objectionable to deprive new bodies of direct representation.

Sir VICTOR HORSLEY in supporting the amendment said that it crystallised the feeling that this Council was not a representative council at all, so far as the representation of the universities was concerned.

Mr. JACKSON was glad that he had brought forward this matter because it had elicited much of the opinion of the Council. He should be pleased if either the motion or the amendment were passed, but he did not propose to withdraw his proposal in favour of the amendment.

On a division the amendment was rejected by 16 votes to 9.

Dr. MCVAIL wished to move another amendment to the motion, but he objected to go on with it that day because even at the minute he was speaking the Council was sitting beyond the time allowed by the standing orders.

The Council adjourned till Monday.

MONDAY, MAY 25TH.

The Council resumed its sittings to-day, Sir WILLIAM TURNER being in the chair.

Instead of continuing the discussion on Mr. Jackson's motion which was before the Council at its rising on Saturday it was decided to proceed with the penal cases.

The Case of Dr. James Kirkland.

Consideration was first given to the case of James Kirkland of 7, Ladbroke-square, W., registered as M.B., Mast. Surg., 1895, Univ. Glasg., who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:—

That being a registered medical practitioner you have been, and are, a party to the publication of advertisements circulated in pamphlets on social purity purporting to contain advice to young persons, informing the public that the authors of the pamphlets have secured the cooperation of a well-known physician who has for years made the nervous and physical conditions which evil habits bring about a special study and whose charge is moderate, and inviting the public to apply for your address, and to the issue to persons who answered the advertisement of lithographed forms, stating your name, address, and hours of consultation, and that you are the physician recommended in the pamphlets.

Dr. Kirkland appeared, accompanied by his counsel, Mr. William B. Campbell, instructed by Messrs. Edwin Smith and Ellis, solicitors, Bedford-row.

The complainants, the London and Counties Medical Protection Society, Limited, were represented by Dr. H. Woods, their general secretary.

Mr. WINTERBOTHAM, solicitor to the Council, read the charge.

Dr. WOODS, in opening the case, stated that the pamphlets referred to were cheap publications sold at various small shops and particularly at the late Mr. Kensit's place in Paternoster-row. They were unspeakably filthy and there could be no doubt that Dr. Kirkland was the physician referred to in them. The statutory declarations before the Council made it perfectly evident that Mr. Kensit represented that Dr. Kirkland was the person he wanted to recommend, and when patients went to Dr. Kirkland he charged a medical practitioner's fee. Whether authorised by Dr. Kirkland or not, he had been perfectly well aware of the publications; he had taken advantage of them by treating patients who had come to him through them and had made no effort whatever to stop them.

The statutory declarations in support of the charge were held as read.

Mr. CAMPBELL, in defence, said that the charge was that Dr. Kirkland had been guilty of self-advertisement. It came as a surprise to him that Dr. Woods added to the charge that the medium in which the advertisements appeared were objectionable as the pamphlets contained obscene passages. It would have been fairer if he had been previously told of this addition to the charge, but the answer was that Dr. Kirkland was not responsible for these pamphlets, that he never knew of their existence until the present charge was brought, and that he was not the physician referred to in them. Consequently he (Mr. Campbell) was not called upon to defend the Kensit pamphlets. With respect to a pamphlet published for Mr. Henry Varley, which contained an announcement similar to that objected to in the other publications, that publication was strictly proper and Dr. Kirkland would not in the slightest degree deny that he gave his name to Mr. Varley for certain limited purposes only, he being an old friend of Dr. Kirkland's wife. Mr. Varley's book had been published first in 1883—a time at which Dr. Kirkland had not commenced the study of medicine—and it contained the announcement objected to and so Dr. Kirkland could not be the physician referred to. If he was not the physician how was it possible for the three persons who had made statutory declarations to get his name and address? It came about in this way. Mr. Varley was frequently away from town. He asked Dr. Kirkland to let his publisher have his name and address in print and Dr. Kirkland supplied lithographed forms. But to treat that as wholesale self-advertisement would be really trifling with common sense. Dr. Kirkland had not had the slightest idea that these forms were to be used in connexion with any printed pamphlets. How came it that Mr. Kensit, as well as Mr. Varley, recommended Dr. Kirkland? Simply in this way, that when Mr. Kensit published one of the pamphlets which had been named by Dr. Woods he, without Dr. Kirkland's authority, imitated Mr. Varley. Dr. Kirkland had never been warned of what was going on, but so soon as complaint was made he gave not only verbal but written instructions to have all his lithographed forms destroyed. At this moment Dr. Kirkland was willing to give the most distinct undertaking that the thing should not happen again.

Statutory declarations in defence previously lodged with the Council were taken as read.

Dr. KIRKLAND then gave evidence in his own behalf. In answer to Mr. CAMPBELL he stated that he came to practise in London in 1899. He met Mr. Varley, whom he knew to be interested in social purity matters, in September of that year, having to attend him professionally, and it was then for the first time that Mr. Varley broached his wish to

have witness as a physician he could recommend. At that time witness did not know anything of Mr. Varley's book and he never authorised Mr. Varley or his publisher to use an advertisement he might have the advantage of. As a matter of fact, when he knew of the book he did not know that the announcement in respect to a physician referred to himself. He had never seen the Kensit pamphlets until the letter of the registrar of the Council reached him and he did not know John Kensit. He had never been in communication with the social purity people in London, and if the announcement in the Kensit pamphlet actually referred to him he did not know it. He certainly knew of the Council's rule as to advertising. He had never advertised. He did not think that the giving of lithographed forms to save other people the trouble of writing his name and address was an infringement of the rule in question. He certainly never agreed that these forms should be given for Mr. Kensit's use. He had ordered the forms and he paid for them. If these forms were in circulation in February it was not to his knowledge, for he had ordered their destruction in October, he thought. He had had no patients through them since October, 1902.

Mr CAMPBELL: You do sincerely regret that an offence has been committed and you intend not to repeat it?

WITNESS: Certainly.

Dr. MACALISTER: Did you make every effort to get these pamphlets suppressed?

WITNESS: No; I have nothing to do with them; I did not know of their existence until I heard from the Council.

In answer to Dr. MCVAIL, witness said that everything he had done in connexion with the lithographed forms had been done through Mr. Varley, to whom he gave them to circulate to whomsoever he liked. He had prescribed to country patients by letter without seeing them if he thought that it could safely be done.

Mr. ALFRED HOLNESS, publisher of Mr. Varley's book, was next examined. He testified that he got 200 or 300 of the forms in question. Mr. Kensit had come to him and said that he was dissatisfied with the physician he had been recommended, and he asked witness if he would have any objection to send the circular which he indicated that he knew had been prepared for Mr. Varley and witness had replied, "Certainly not." The reason he gave Mr. Kensit for saying so was this, that many of the letters received by him on Mr. Varley's behalf showed him that many young fellows were brought under the influence of quacks and he felt that if they could be brought into contact with a regular practitioner instead it would be advantageous. He had no authority to give away the circulars to Mr. Kensit or on behalf of that gentleman. At the time he complied with Mr. Kensit's request he did not realise the seriousness of the position in which he might be putting Dr. Kirkland in the way in which he had realised it to-day after hearing the evidence. He took all responsibility for the sending out of any of Dr. Kirkland's forms subsequently to October last. Ever since he had been acquainted with the matter—now 20 years or so—Mr. Varley's pamphlet had contained the information that there was a physician whose name and address could be got on application.

Mr. HENRY VARLEY was also called. He confirmed the statutory declaration which he had made and in cross-examination he declared that the paragraph in his book complained of had no distinct reference to Dr. Kirkland whose wife he had known since childhood. In 1902 he knew that Dr. Kirkland was being recommended to applicants who had read his book, but he never mentioned to him that his name was being so used.

The Council deliberated on the case *in camerâ*. On the readmission of the public,

The PRESIDENT, addressing Dr. Kirkland, said: The Council understands that counsel, acting on your behalf, has given the undertaking that you will come under the obligation to cease this conduct in connexion with the charge made against you. Will you state that that is so?

Dr. KIRKLAND: Yes, sir.

The PRESIDENT: Then I have to communicate to you the following resolution:—

1. The facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council. 2. Seeing, however, that you have expressed your regret that you have committed what the Council regards as a grave professional offence and that you have promised to abstain from any conduct affording similar ground of complaint for the future the Council has resolved not to proceed any further in reference to the facts proved against you.

The Case of Mr. Edward John Smith.

The Council proceeded to the consideration, adjourned from Nov. 26th, 1902, of the facts proved against Edward John Smith of 110, Balsall Heath-road, Birmingham, registered as Lic. Soc. Apoth. Lond., 1883, Mem. R. Coll. Surg. Eng., 1885, who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:—

That you have been guilty of infamous conduct in a professional respect, the particulars of which are as follows: That you, being a registered medical practitioner, systematically seek to attract practice by a system of extensive public advertisements containing your name, address, and qualifications, and invitations to persons in need of medical aid to consult you professionally, the advertisements so systematically published by you being themselves of a character discreditable to a professional medical man.

At the conclusion of the deliberations of the Council on this case on Nov. 26th, 1902, the President on behalf of the Council addressed Mr. Smith as follows: "The Council have deliberated very carefully on your case and have come to the conclusion that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council. In announcing to you this decision the Council have requested me to state that they take a serious view of your conduct, but in order to give you an opportunity to reconsider your position they have adjourned the further consideration of the charge until the next session, when you will have to appear and satisfy the Council as to your conduct in the interval."

Mr. Smith attended in answer to the summons.

Dr. Bateman appeared on behalf of the Medical Defence Union, the complainants.

Mr. WINTERBOTHAM having read the notice to attend, Dr. BATEMAN stated that he had no further evidence to offer against Mr. Smith and that he was perfectly satisfied as to his conduct in the interval since last session.

Mr. SMITH, in answer to the PRESIDENT, stated that he had discontinued the practice complained of and he undertook not to repeat it in the future.

After a short deliberation in private,

The PRESIDENT, addressing Mr. Smith, said: Mr. Smith, the Council has deliberated on your case and relying on your statement and promise has resolved:—

That the Council, having further considered the facts proved against you, does not judge you guilty of infamous conduct in a professional respect.

Mr. SMITH: I should like to address a few words to you.

The PRESIDENT: No, no. We cannot hear you; your case is closed.

Amendment of Medical Acts.

Mr. TOMES asked a question in regard to the terms of General Laurie's Bill to amend the Medical Acts, to which the President had alluded in his address.

The Registrar was directed to procure copies of the Bill for the information of the Council.

The English Conjoint Board's Examinations.

Sir VICTOR HORSLEY asked a question as to the progress made by the Examination Committee in the preparation of the report on the visitation and inspection of the primary examinations of the English Conjoint Board.

As Mr. Bryant was absent other members of the committee stated in reply that the chairman of the committee had promised to prepare a draft report for the consideration of the committee on Wednesday, May 27th.

The Council adjourned.

TUESDAY, MAY 26TH.

The Council continued its sittings to-day, Sir WILLIAM TURNER again presiding.

The Case of Dr. J. Dugald Maclean.

Consideration was given to the case of James Dugald Maclean, of 72, Summer-hill-road, Birmingham, registered with the triple qualification of Scotland, 1893, and M.B. Mast. Surg., 1893, Univ. Edin., who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:—

That at various dates in November and December, 1902, you signed certificates that you had examined Ernest Cotterill of 6, Eyre-street, Birmingham, and found that he was at the date of the certificate unable to attend school, and that you gave those certificates without seeing or examining the said Ernest Cotterill.

Dr. MACLEAN appeared, being accompanied by Dr. WOODS, secretary of the London and Counties Medical Protection Society, Limited.

Mr. WINTERBOTHAM stated that the complaint had originated with a public board—the Birmingham School Board.

The PRESIDENT asked Dr. Maclean if he was represented.

Dr. MACLEAN replied in the negative.

Dr. WOODS: I shall represent him as far as I can.

The PRESIDENT: In what capacity?

Dr. WOODS: As secretary of our society of which he is a member to give him all the assistance I can and the Council will allow.

The PRESIDENT: Are you a member of the legal profession?

Dr. WOODS: No; but I claim the right to assist a member of our society.

The PRESIDENT stated that the rule was that an accused person could only be represented by a member of the legal profession. Dr. Woods might attend, but only as a witness.

After some further remarks, on the motion of Sir VICTOR HORSLEY, Dr. Woods received permission to put questions to witnesses on Dr. Maclean's behalf.

Dr. WINDLE, mentioning that he was a member of the Birmingham Education Committee, suggested that it would perhaps be better if he took no part in this case.

The Council agreed and the President said that the fact would be entered on the minutes.

Mr. WINTERBOTHAM explained that there were several statutory declarations in support of the charge and he would call those who made them to confirm them verbally. The case had been before the Birmingham magistrates as one of non-attendance at school and the evidence then submitted showed that when one or more of five certificates were given by Dr. Maclean the boy named in the charge was actually at work. The Birmingham education authorities had complained in this case in order, if possible, to prevent certificates of inability to attend school being given in such an irregular fashion.

Several witnesses were then called to speak as to declarations they had made in respect to the boy being at work, his absence from school under certificates that owing to illness he was unable to attend, an interview with Dr. Maclean, the police-court proceedings, &c.

Dr. MACLEAN gave evidence for himself. He produced declarations from Ernest Cotterill and individuals who had accompanied him on the visits to the surgery to show that on four occasions there had been examinations of the boy's condition previous to the granting of a certificate while the fifth certificate which had been referred to had been one made out for the School Board. Dr. Maclean admitted that none of the persons making these declarations were in attendance to confirm them.

Mr. WINTERBOTHAM said that the declarations now produced by Dr. Maclean—which according to their rules ought to have been lodged ten days ago—absolutely contradicted the declarations in support of the charge. It was not perfectly clear who was telling the truth.

After deliberation in private,

The PRESIDENT informed Dr. Maclean that the Council had decided that the facts alleged in the notice of inquiry had not been proved to the Council's satisfaction. Therefore the case was closed.

The Case of Mr. F. de Roos Owen.

Consideration was next given to the charge proved against Frederick de Roos Owen in regard to whom the Dental Committee had found the following facts:—

The complaint against Frederick de Roos Owen having been referred to the Dental Committee to ascertain the facts the Dental Committee beg to report as follows. On Feb. 24th, 1903, the inquiry was held. Mr. Frederick de Roos Owen appeared personally and was also represented by Mr. George Wallace, his counsel. The committee find that the following facts were established by the evidence or were admitted: (a) Frederick de Roos Owen was registered in the Dentists Register as in practice before July 22nd, 1878, and his address in the Dentists Register is Oxford-street, Swansea. (b) Being a registered dentist Mr. F. de Roos Owen has permitted an unqualified person named A. G. Holt to attend patients and perform operations on them and to practise dentistry on his behalf in his name at 4, Windsor-place, Cardiff; and the practice at 4, Windsor-place, Cardiff, was carried on in this manner for a period extending from March to October, 1902, both months inclusive. (c) Since the commencement of November, 1902, the said A. G. Holt has been employed by Mr. F. de Roos Owen and allowed by him to act in the conduct of the said practice in a purely mechanical capacity only and Mr. Wallace, as counsel for Mr. F. de Roos Owen, gave to the committee an unqualified undertaking on behalf of Mr. F. de Roos Owen that in future he would employ as his assistants duly qualified persons only, which undertaking the committee report to the Council.

Mr. Owen appeared along with his solicitor, Mr. Spencer Chapman.

Mr. R. W. Turner attended on behalf of the British Dental Association, under the instructions of Messrs. Bowman and Curtis Hayward.

The foregoing report having been read by the REGISTRAR,

Mr. OWEN, in answer to the PRESIDENT, said that he still employed Mr. Holt, but only as a mechanical assistant. He adhered to the undertaking which he had given to employ for practice qualified persons only and he had made arrangements to carry that into effect.

Mr. TURNER informed the Council that he had really nothing to say now about this case as he was satisfied that the cause of complaint had been removed.

The PRESIDENT: Then, Mr. Owen, I am instructed by the Council to say, that having further considered the charge brought against you and the reports of the Dental Committee thereon, the Council does not judge you guilty of infamous or disgraceful conduct in a professional respect.

The Case of Mr. David Anthony.

The next business taken up was consideration of the charge proved against David Anthony, in regard to whom the Dental Committee had found the following facts:—

The complaint against David Anthony having been referred to the Dental Committee to ascertain the facts, the Dental Committee beg to report as follows: On Feb. 24th, 1903, the inquiry was held. Mr. David Anthony appeared personally, and was also represented by Mr. Kirby, a solicitor. The committee find that the following facts were established by the evidence. (a) David Anthony was registered in the Dentists' Register as in practice before July 22nd, 1878, and his address registered in the Dentists' Register is 39, St. Mary-street, Cardiff. (b) Being a registered dentist Mr. Anthony has habitually permitted an unqualified person named Jonathan Edwin Billups Lee to attend patients and perform operations upon them and to practise dentistry on Mr. Anthony's behalf in Mr. Anthony's name at 110, Queen-street, Cardiff. This course of practice by Mr. Anthony continued regularly during the period between the months of March and December, 1902, inclusive, in which latter month the connexion between the said Jonathan Edwin Billups Lee and the said David Anthony ceased. (c) On Jan. 9th, 1903, a joint stock company named Anthony, Dentists (Cardiff), Limited, was registered, for the object (amongst others) of purchasing and carrying on the business of a dentist carried on by David Anthony at No. 110, Queen-street, Cardiff, and of employing thoroughly practical persons to act on the company's behalf as dentists. By the company's memorandum of association it appeared that Mr. Anthony subscribed the memorandum for 50 shares, the other six signatories being subscribers for one share each. (d) Mr. Anthony has still in his employment as assistant an unqualified person. (e) Mr. Anthony stated that he did not receive the circular of the General Medical Council which was issued in 1900 relating to employment of unqualified assistants. His name was taken off the Register in the latter part of 1900 under Section 12, but he was restored in 1901. A previous issue of the circular took place in 1892.

On the case being called to-day no appearance was made by or for Mr. Anthony.

Mr. R. W. TURNER was present for the British Dental Association and, after the foregoing report had been read, stated to the Council that the Dental Association regarded Mr. Anthony's case as a very important one. It would be found on inquiry, if made, that this man had not for many years practised dentistry, although his name was on the Register. He had set up the business mentioned in the report only two years ago and had carried it on by an unqualified assistant. When before the committee he had been asked to give an undertaking not to employ unqualified people and he would not do so.

After a short deliberation *in camerâ*,

The PRESIDENT announced that the Council had come to the resolution that on the facts found in the report of the Dental Committee, Mr. Anthony had been guilty of infamous and disgraceful conduct in a professional respect and the Registrar had been instructed to erase his name from the Dentists' Register.

The Case of Mr. H. J. Allwood.

The Council proceeded to deal with the charge proved against Mr. Henry Joseph Allwood in regard to whom the Dental Committee had found the following facts:—

The complaint against Henry Joseph Allwood having been referred to the Dental Committee to ascertain the facts the Dental Committee beg to report as follows. On Feb. 24th, 1903, the inquiry was held. Mr. Henry Joseph Allwood appeared personally and was also represented by Mr. Baker, a solicitor. The committee find that the following facts were established by the evidence: (a) Henry Joseph Allwood was registered in the Dentists' Register as in practice before July 22nd, 1878, and his address in the Dentists' Register is 50, New-street, Birmingham. (b) Being a registered dentist he has sought to attract business by a system of public advertisements containing his name, address, and qualifications and in which he is described as Dr. Allwood and by which persons in need of dental aid are invited to consult him professionally, and in the advertisements he claims superiority over other practitioners and depreciates their work. (c) The said Henry Joseph Allwood is not entitled to assume the medical title of doctor. (d) The said Henry Joseph Allwood by his solicitor and personally gave to the committee an unconditional undertaking that in the future he would abstain from issuing any advertisements at all in connexion with his practice, and to withdraw the letters D.D.S. from his description of himself, which undertaking the committee report to the Council.

Mr. ALLWOOD appeared for himself.

Dr. WOODS, who had made a statutory declaration which the committee had accepted as part of the evidence in the case, was present in support of the charge.

The PRESIDENT asked if the unconditional undertaking given to the committee had been given effect to.

Mr. ALLWOOD replied that it had.

The PRESIDENT: And do you intend in the future not to repeat this offence charged against you?

Mr. ALLWOOD: I do so.

Dr. WOODS: I have made inquiry and I think that Mr. Allwood has done all that he undertook to do, and I do not wish to press the case any further.

The PRESIDENT, after a private deliberation on the case by the Council, addressing Mr. Allwood said: The Council has considered your case and the unconditional undertaking which you have given and they do not judge you to be guilty of infamous conduct in a professional respect.

The Case of Mr. W. J. Ferguson Mackeown.

Consideration was next begun of the charge proved against William Joseph Ferguson Mackeown, in regard to whom the Dental Committee had found the following facts:—

The complaint against William Joseph Ferguson Mackeown having been referred to the Dental Committee to ascertain the facts the Dental Committee beg to report as follows. On May 20th, 1903, the inquiry was held. Mr. Mackeown was present personally, and was also represented by Mr. Saunt, counsel. The committee find that the following facts were established by the evidence: (*a*) William Joseph Ferguson Mackeown was registered in the Dentists' Register on Dec. 16th, 1902, and his address in the Dentists' Register is 28, Tentercroft-street, St. Mark's, Lincoln. (*b*) In the month of April, 1901, Mr. Mackeown obtained his qualifying diploma from the Royal College of Surgeons of Edinburgh and on Dec. 8th, 1902—that is to say, a few days before his name was registered in the Dentists' Register—he entered into the employment of two unregistered and unqualified persons named Newton and Holden who were then, and are, carrying on business at the above-mentioned address, 28, Tentercroft-street, Lincoln, as dentists under the style of Newton and Holden, Limited. (*c*) The said Newton and Holden advertise extensively in Lincoln and elsewhere and by their advertisements in which they affix the letters D.D.S. to their names lead the public to believe that they are qualified dentists. (*d*) One of the objects with which Mr. Mackeown was employed by the unregistered dentists was to deal with cases in which the services of a medical man were required to administer anæsthetics, and on Dec. 8th, 1902, Newton and Holden sent out a lithographed letter to the medical men in Lincoln stating that arrangements had been made with Mr. Mackeown with this view. (*e*) On April 8th, 1903, Mr. Mackeown left the employment of Newton and Holden and severed his connexion with them. (*f*) Mr. Mackeown stated to the committee, both in his evidence and through his counsel, that his error in taking employment under the unqualified persons was committed through ignorance and that he would have left their employment as soon as he had become aware that he ought to do so had it not been that one of his employers was taken ill and he considered that he ought not to throw up the work which he had undertaken to do till that employer was better. Mr. Mackeown further stated to the committee that his intention is immediately to proceed to South Africa to practise there, and through his counsel he admitted that he had done wrong and trusted that in consideration of his being young and inexperienced the Council would take a lenient view of his case. The committee accept the statements which were thus made to them.

Mr. Mackeown did not appear when the case was called.

Mr. WINTERBOTHAM told the Council that he was under the impression that Mr. Mackeown would attend and he believed that he was not present only because of some misapprehension.

The Council went into *camerâ* on the case and the announcement was made at the close of the deliberation that it had agreed not to proceed any further with it.

The Case of Mr. Moses Blok.

Consideration was next given to the case of Moses Blok of 47, Pyrland-road, Canonbury, N., registered as Lic. Soc. Apoth. Lond., 1871, who had been summoned to appear to answer the following charge, as formulated by the Council's solicitor:—

That you have on divers occasions permitted an unqualified person—namely, Camille Lebon—to attend and prescribe for patients and to practise medicine on your behalf and in your name, both at your surgery, No. 7, New Goulston-street, Aldgate, and at the homes of your patients.

Mr. Blok appeared, accompanied by Mr. D. A. Romain, his solicitor.

Dr. BATEMAN represented the complainants—the Medical Defence Union.

Mr. WINTERBOTHAM read the notice of inquiry given to Mr. Blok and the charge which he was asked to meet.

Dr. BATEMAN, in support of the complaint, read two statutory declarations which he contended showed clearly enough that there was ground for bringing the charge of covering now made against Mr. Blok, who had more than once had unqualified persons in charge of his East-end premises. Mr. Blok, he understood, had dismissed Mr. Lebon. But if the Council took the view that dismissal of an unqualified person on receiving notice from the General Medical Council was sufficient there was an end to bringing cases like this one at all.

Mr. BLOK gave evidence. He stated that he attended daily in the East-end premises from 10 A.M. to 1 P.M. and from 6.30 to 9 P.M. He never missed a day. He went on Sundays also. These premises were locked up at night; nobody lived or slept there. Mr. Lebon, whom he employed from September last, had two German diplomas—one being from the Strassburg University—and he was studying to go up for the examination of the English Conjoint Board. He could talk Yiddish and therefore could deal in witness's absence with the poor foreigners who could not speak or understand English. However, he had been employed by him (Mr. Blok) only as dispenser and surgery attendant with no authority whatever to see and to prescribe for patients. These instructions he had on one occasion overlooked but he received instant notice of dismissal for doing so; he received notice on March 10th and left on March 28th and as the General Medical Council's intimation of this charge was not made till April 27th it could not be alleged that he (Mr. Blok) took action in the matter only after receiving the intimation referred to.

Mr. ROMAIN addressed the Council, mentioning that Mr. Blok had a professional experience extending over 30 years and that his reputation and character were such that with the sanction of Dr. Adler, the chief of the synagogue, he held important appointments among the Jewish community.

Dr. BATEMAN replied.

After the Council had deliberated in private for a few minutes,

The PRESIDENT, addressing Mr. Blok, said: I have to inform you that the Council does not consider that the facts alleged in the charge have been proved against you.

The Council adjourned.

Medical News.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the preliminary science examination for the Licence in Dental Surgery in chemistry at the quarterly meeting of the examiners:—

Thomas Tebbutt Blaxley, Birmingham University; Robert Booth, Harris Institute, Preston; Henry Reginald Bulcock, Technical School, Liverpool; Thomas Benjamin Burke, Technical School, Manchester; Arthur Basil Cross and John William Doherty, Birkbeck Institution; Roland Pitt Fenn, Guy's Hospital; Duncan Baron Franks, Oxford University; James Perrins Glassington, Middlesex Hospital; Arthur John Haddock and James Charles Harrison, Charing Cross Hospital; Mark Hall, Durham University; Arthur Tidswell Hanson, Yorkshire College and Technical School, Halifax; Claud Noel Hardman, Bradford Technical College; Charles Hatt, Birkbeck Institution; John William Hindle and William Cecil Birch Kitchen, Royal Technical Institute, Salford; Bertram Charles Kirkman, Technical School, Liverpool; Arthur Thirlby Knight, Birmingham University; Charles George Gordon Lewis, University College and Merchant Venturers Technical College, Bristol; Hugh Widenham Mace, Technical School, Liverpool; Maurice John Maguire, Queen's College, Belfast; Vivian Masters, Birkbeck Institution; Henry Garfield Pearce, Guy's Hospital; Arthur Thomas Pitts, Wandsworth Technical Institute; Ronald Richard Bertram Ponder, Reading College; George Eugene Rice, Polytechnic Institute; Lewis Glendower Riseman-Harris, Rutherford College; Robert Denly Sadler, Birkbeck Institute; William James Spargo, Science and Art Institute, Walsall; Thomas Cowley Stephen, Royal Technical Institute, Salford; William Christie Tattersall, City of London College; George Frederick Taylor, Charing Cross Hospital; Bargrave Lancelot Weaver, Battersea Polytechnic Institute; Howard Wordsworth, Birkbeck Institution; and Ronald Martin Wormald, Brighton Technical School.

The following gentlemen passed the first professional examination for the Licence in Dental Surgery in the subjects indicated at the May half-yearly meeting of the examiners:—

Mechanical Dentistry and Dental Metallurgy.—Frederick Watson Aitken, Dental Hospital, Birmingham; Francis Leonard Aubrey and Willie Julian Bollard, Guy's Hospital, Dental Department; John Piercy Brown, Dental Hospital, Liverpool; Cecil Edgar Badcock and Leonard Charles William Balls, Charles Joseph Brothers, Charles Augustus Burpett, and Alexander Henry Craig, Royal Dental Hospital, London; George William Collinson and John Arthur Crump, Victoria Dental Hospital, Manchester; Tom Bertie Royal Ellis, Walter Elwood, Arthur Alan Forty, Frederick Holcombe Fuller and Francis Joseph Goodman, Guy's

Hospital, Dental Department; Theodore James Gayton Fielder, William Douglas Frew, Leonard Anderson Glaisby, Duncan Henry Grubb, Arthur John Haddock, and Samuel Hallam, Royal Dental Hospital, London; Arthur William Gant, Arthur Tidswell Hanson, and Sidney Harlock, Victoria Dental Hospital, Manchester; Arthur Hammond-Smith, William Alfred Helyar, and Percy Harold Hickman, and Frank Alfred Husbands, Guy's Hospital, Dental Department; Wilfrid Harvey, National Dental Hospital; John Garnet Hemsley, Frank William Herbert, Albert Oliver Macarius Heslop, and Herbert Henning James, Royal Dental Hospital, London; John Joseph Horton, and John Robertson Knott, Dental Hospital, Birmingham; Arthur George Lacey, Royal Dental Hospital, London; George Edward McMahon, Dental Hospital Liverpool; Philip Edwin Luce, James William Mawer, Norman McLeod Nibbs, Herbert Arnold Pallant, Henry Maurice Peacock, Henry Garfield Pearce, Edward Laurence Pilbeam, and Herbert Poyton, Guy's Hospital Dental Department; William Charles Augustus Ovey, Albert Pfeiffer, Charles Read, and George Theodore Robinson, Royal Dental Hospital, London; Harold Ridges Rowe, National Dental Hospital; Ronald Maclean Rowatron, Newcastle-on-Tyne Dental Department, Durham; Harold John Russell and John Francis Ryder, Guy's Hospital, Dental Department; Christopher John Storey, National Dental Hospital; Harold Foster Strickland, George Frederick Taylor, Frank Throp, William Collingwood Tuck, Royal Dental Hospital, London; Frederick Vesper, National Dental Hospital; James Herbert Williams and William John Wormald, Guy's Hospital, Dental Department; Francis Raymond Wilson, National Dental Hospital; and Aubrey Geer Wootton, Royal Dental Hospital, London.

Mechanical Dentistry.—William Bowater, Dental Hospital, Birmingham; Lionel Curtis, Edmund Aloysius Emery, Royal Dental Hospital, London; James Hargreaves, Victoria Dental Hospital, Manchester; Sidney Herbert Hole, Royal Dental Hospital, London; Edward Henry Hollick, Dental Hospital, Birmingham; William John Jones, Royal Infirmary and General Hospital, Dental Department, Bristol; Herbert Frank Marshall, Dental Hospital, Birmingham; Arthur Miller, Royal Dental Hospital, London; George Holmes Smith, Royal Infirmary and General Hospital, Dental Department, Bristol; Herbert John Snowdon, Guy's Hospital Dental Department; Harold Thomson, Victoria Dental Hospital, Manchester; Ingram Ernest Watson and Henry John Trude, Royal Dental Hospital, London; and Reginald Cecil Webster and John William, Dental Hospital, Liverpool.

Dental Metallurgy.—William Edmund Cook, Guy's Hospital, Dental Department; Richard Halford Winterly Crouch, Dental Hospital, Birmingham; Montague N. Goodman, Royal Dental Hospital, London; Samuel Isaacs, Victoria Hospital, Manchester; John Jackson Law, Royal Dental Hospital, London; and Hedley Hargreaves Taylor, Victoria Dental Hospital, Manchester.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated:—

Surgery.—E. F. Beaumont (Section II.), Middlesex Hospital; W. H. Crossley, St. Bartholomew's Hospital; N. S. Finzi (Sections I. and II.), University College Hospital; E. Gray, London Hospital; W. P. Jones (Section I.), Sheffield; W. S. Lewis (Section II.), Birmingham; and W. Martin (Sections I. and II.), St. George's Hospital.

Medicine.—D. Cotes-Preedy (Sections I. and II.), Cambridge and St. George's Hospital; E. H. Drinkwater (Section I.), Liverpool and St. Bartholomew's Hospital; H. J. Gater (Sections I. and II.), Guy's Hospital; and L. C. A. Savatard (Sections I. and II.), Manchester.

Forensic Medicine.—D. Cotes-Preedy, Cambridge and St. George's Hospital; E. H. Drinkwater, Liverpool and St. Bartholomew's Hospital; and J. M. King, University College Hospital.

Midwifery.—A. J. Ambrose, Westminster Hospital; C. C. Bernard, Royal Free Hospital; R. H. Cooper, Charing Cross Hospital; F. F. L. How, University College Hospital; J. E. Jones, Bristol; P. J. Pagonis, Athens; H. A. Parker, St. Thomas's Hospital; N. O. Roberts, Cambridge and St. Mary's Hospital; and J. W. Watson, Manchester.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—E. F. Beaumont, D. Cotes-Preedy, W. H. Crossley, E. Gray, and W. Martin.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATION.—The following candidates having passed the necessary examination have been admitted Fellows of the College:—

C. Cooper, Miss A. N. V. Johnson, R. P. M'Donnell, R. F. C. Talbot, and J. Trumbull.

The following have passed the primary part of the examination:—

I. Allaun, R. F. Hayes, T. J. Brooke-Kelly, and P. D. Sullivan.

TRINITY COLLEGE, DUBLIN.—At examinations held at Trinity term the following candidates were successful:—

Final Examination in Surgery.—William G. Harvey, William R. P. M'Neight, Robert J. Fleming, Reginald H. Lee, John M. Holmes, Henry O'H. May, Alexander L. Otway, John H. Askins, Douglas B. Thomson, David C. Pearson, Reginald W. T. Clampett, Alexander H. Marks, Samuel H. Vickery, Harry R. Nelson, Augustus B. Tighe, and Bertram L. Middleton.

FOREIGN UNIVERSITY INTELLIGENCE.—*Gratz:* Dr. Lorenz of Vienna has been appointed to the chair of Clinical Medicine.—Dr. Knauer of Vienna has been offered the chair of Gynæcology in succession to Dr. Rosthorn who goes to Heidelberg.—*Iurieff (Dorpat):* Dr. Savelieff, Extraordinary Professor of Medicine, has been promoted to the full professorship.—*Jena:* Dr. Bernhard Krönig of Leipsic has been appointed to the chair of Midwifery and Gynæcology in succession to Dr. Schultze, resigned.—*St. Petersburg (Military Medico-Chirurgical Academy):* Dr. V. Orlovski has been recognised as *privat-docent* of Medicine and Dr. Hagen-Torn as *privat-docent* of Surgery.—*Vienna:* It is now announced that Professor Flügge has declined the offer of the chair of Hygiene.

ROYAL MEDICAL BENEVOLENT COLLEGE.—At the annual general meeting held on May 29th at the office of the College in Soho-square, London, W., the following candidates for pensionerships and foundation scholarships were declared to have been duly elected:—

To Pensionerships.—Frances Newsam (Pugh Pensioner), Elizabeth M. Smith, Harriett C. Addison, Margaret A. Mayhew, and Catherine A. Cringle.

To Foundation Scholarships.—Roy G. Shapley, Eric S. Monro, Edward Cooke, Arthur W. Barr, John A. Caw, James L. Taylor, Sydney D. Newton, and John A. R. Campbell.

UNIVERSITY OF LONDON: FACULTY OF MEDICINE.—A meeting of the Faculty of Medicine was held at the University on May 22nd. Mr. H. T. Butlin, the Dean of the Faculty, was in the chair and 40 members were present. The Faculty had under its consideration a proposal by the board of studies in dentistry to institute a special degree in that subject. Two schemes for a curriculum and examinations were submitted. The scheme recommended by the majority of the board required that all candidates for a dental degree should previously have obtained the degrees of M.B., B.S. of the University. The minority scheme required all candidates to have passed the intermediate (M.B.) examination of the University before submitting to the special examination. Full details of each scheme were circulated before the meeting, together with a copy of a petition from the Royal Dental Hospital and National Dental Hospital to the University of London Statutory Commissioners praying that a degree in dentistry should be established. It was moved by Mr. Badcock and seconded by Dr. Lauriston Shaw "That it is desirable that the University of London should institute a degree in dentistry." As an amendment it was moved by Mr. Morton A. Smale and seconded by Mr. W. A. Maggs, "That after consideration of the report of the board of studies in dentistry the Faculty of Medicine is of opinion that it is not desirable at present to establish special degrees in special departments of medicine and surgery." The amendment was carried by 16 votes to 13 and was subsequently adopted as a substantive motion.

THE LEAGUE OF MERCY.—On May 22nd the Prince and Princess of Wales entertained a number of presidents, vice-presidents, and members of the League of Mercy at Marlborough House, when an investiture of the order took place. According to the charter under which the League of Mercy was founded in 1899 its object is to further the interests and to promote the adequate maintenance of hospitals and other institutions for the relief of sickness and suffering, and this was to be done especially by encouraging personal service on the part of large numbers of persons. The League of Mercy has, in the four years during which it has been in operation, contributed £22,000 to King Edward's Hospital Fund, and this part of its work appears to be now established on a firm basis with progressively increasing results. Moreover, the additional £100,000 or £150,000 per annum which the King's Fund was initiated to secure for the hospitals seems to be within measurable distance of being attained. Suggestions have from time to time been made to the effect that it would be fully in accord with the objects and name of the League of Mercy if those who are willing and able to render personal aid to the inmates of hospitals and kindred institutions could be brought together and coördinated under its supervision. In other words it is proposed to establish a "Samaritan Wing" or department of the League of Mercy. The proposal, if found practicable, has the sanction of the Grand Presidents their Royal Highnesses the Prince and Princess of Wales and the approval of His Majesty the King. The work of the league is carried on by a network of branches spread over London and the home counties. Nearly every Parliamentary division within this area has its branch of the league, but even yet the organisation of its machinery is not completed. Nearly every one of the 100 districts into which London and

the home counties have been divided now has its branch of the league at work. Among those who were awarded the Order of the League were the following medical men: Dr. Clement Godson, Mr. Norman Hay Forbes, Mr. T. F. McDonnell, and Mr. H. Wright.

EXMOUTH HOSPITAL.—At a three days' bazaar which has just been held at Exmouth over £1000 were raised towards the building fund of the Exmouth Hospital.

DONATIONS AND BEQUESTS.—By the will of Mr. William H. Cope University College Hospital, London, will receive £100.

MEDICAL MAGISTRATE.—Dr. Thomas Sheldon has been placed, on the nomination of the Lord Lieutenant, upon the commission of the peace for the county of London.

REMUNERATION FOR EXTRA SERVICES.—The Bristol board of guardians on May 22nd awarded 20 guineas to Mr. R. H. Norgate, the resident medical officer of the Stapleton workhouse, in recognition of his services in attending patients at the Broom Hill Fever Hospital.

LITERARY INTELLIGENCE. — Messrs. Baillière, Tindall, and Cox announce that they will this week issue a new volume in their University Series—viz., "A Manual of Medicine," by Professor T. Kirkpatrick Monro. In addition to the foregoing they announce a monograph on "The Imperfectly Descended Testis," by Mr. W. McAdam Eccles, and a new work by Mr. J. Jackson Clarke on "Protozoa and Disease."

OPENING OF KEW BRIDGE.—Mr. Joseph Smith, M.R.C.S. Eng., chairman of the Chiswick urban district council and late honorary surgeon of the Royal Surrey County Hospital, had the honour of being presented to their Majesties the King and the Queen on the occasion of the opening of Kew Bridge on May 20th. Mr. Smith at the same time presented to the King on behalf of the inhabitants of Brentford and Chiswick a silver tankard, a magnificent specimen of the jeweller's art, dated 1721. His Majesty graciously accepted it and expressed himself much pleased with the gift.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—The festival dinner of this hospital was held under the chairmanship of Alderman and Sheriff Sir George Wyatt Truscott at the Stationers' Hall, Ludgate-hill, London, on May 20th. In the course of replying to the toast of "The Medical Staff" Dr. G. A. Heron referred to the congress for discussing the means by which the spread of consumption may be prevented which is proposed to be held in Paris in October, 1904. A report would be made to that congress of what was being done in various countries by the working men's societies to assist in preventing the spread of that disease. A request had been received by the authorities of the City of London Hospital asking that the English working men's friendly societies should supply information concerning the steps which they are taking to help in preventing consumption with a view to the facts being embodied in a report to be submitted to the congress in Paris in 1904. It was desirable that the information required from the English working men's friendly societies should be supplied before the end of 1903. The chairman, in proposing "Prosperity to the City of London Hospital for Diseases of the Chest," made an eloquent appeal for funds in aid of the institution. He pointed out that the hospital was situated in a most densely populated area of the metropolis and explained what a terrible and dangerous thing it was to have a patient suffering from consumption living in a crowded and ill-ventilated home. He suggested that a very practical way of helping the hospitals in London would be to free them from the obligation to pay rates. After the chairman's speech a list of subscriptions was announced amounting to about £2000, a gratifying result which was received with much cheering. Sir Edmund Hay Currie then proposed the toast of "The Committee and Executive Staff" and spoke of the admirable manner in which the administration of the hospital was carried on. This toast was replied to by Sir Edward Sassoon, M.P., treasurer and chairman of the hospital committee. A long list of other toasts followed and it was not until a late hour that the company separated.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

IT is understood that on Friday, June 26th, the Earl of MEATH intends to draw the attention of the Government to the report of the Royal Commission on Physical Training in Scotland and to the report of the Inspector-General of Recruiting for 1902, in the latter of which it is stated that the one subject which causes anxiety in the future as regards recruiting is the gradual deterioration of the physique of the working classes, from which the bulk of the recruits must always be drawn. He will also ask the Government what steps it proposes to take in order to arrest this physical deterioration "which varied and undoubted evidence shows to be gradually taking place amongst the poorer portions of the populations of the large cities of Great Britain and which if allowed to continue unchecked threatens the State with grave national peril."

HOUSE OF COMMONS.

THURSDAY, MAY 21ST.

Report on Enteric Fever and Dysentery.

Dr. FARQUHARSON asked the Secretary of State for War whether the report of the Committee of Army Medical Officers, military and civil, sent to South Africa to report on the prevalence of enteric fever and dysentery during the war had been received; and, if so, whether it would be laid upon the table of the House.—Mr. BRODRICK replied: The report has been received and will be laid on the table.

Vivisection at University College.

Sir FREDERICK BANBURY asked the Secretary of State for the Home Department what was the nature and amount of the anæsthetic given to the brown dog operated upon consecutively by vivisectors at University College, London, on Feb. 2nd last; how long before the animal was brought into the theatre by Dr. Bayliss was that anæsthetic administered; would he state who was the licensee who performed the experiment involving the two cutting operations upon the dog before it was operated upon in another part of its body on Feb. 2nd last by Dr. Bayliss; and under what certificate was the experiment involving these two operations performed.—Mr. AKERS-DOUGLAS: If, as I understand is the case, there is an action pending in connexion with statements which have been made regarding the operations performed at University College on Feb. 2nd last by Dr. Bayliss, I do not think I ought to go into detailed points such as those mentioned in the first two paragraphs of the question. I have already in previous answers given fully the main facts of the case. As to the two last paragraphs Professor E. H. Starling performed the experiment referred to under Certificates B. and E.E.

Leprosy in Ceylon.

Mr. SCHWANN asked the Secretary of State for the Colonies whether, in view of the prevalence of leprosy in Ceylon and of the fact that the ordinances recently passed by the Legislative Council provided for the compulsory segregation of lepers in Ceylon, he would state what was the number of leper hospitals in Ceylon and how many leper patients could be accommodated therein; and whether he would consider the advisability of making provision for these people by the erection of additional hospitals in isolated districts with a view to enable the segregation of all lepers to be properly carried out if the present accommodation was insufficient.—Mr. CHAMBERLAIN replied: There are two leper hospitals in Ceylon and 312 leper patients can be accommodated in them. The leper ordinances do not require that lepers who can be otherwise properly isolated should be removed to a hospital and I am not aware that the hospital accommodation is insufficient, but I will consult the Governor on the subject.

MONDAY, MAY 25TH.

The Infected War Blankets.

Mr. DAVID MORGAN asked the President of the Local Government Board if his attention had been called to an outbreak of typhoid fever on the training ship *Cornwall*, lying off Purfleet, which had been reported upon by the port sanitary officer of the corporation of the City of London; and, if so, whether he would state what steps he proposed to take.—Mr. LONG replied: My attention has been called to this matter and the acting medical officer of the Port of London has been in communication with my department on the subject. The blankets which were considered to be the cause of the outbreak were all removed to the disinfecting station of the port authority and thoroughly disinfected and cleansed. In addition every article of bedding was removed from the ship and submitted to the same process. The infected quarters on board have also been thoroughly disinfected. I understand that not more than 10 cases of typhoid fever occurred on board the vessel and I am glad to be able to say that no fresh case has been notified since May 4th.

Sir THOMAS DEWAR asked the Secretary of State for War whether he was aware that a number of army blankets which were condemned in South Africa were sold to the training ship *Cornwall* where an outbreak of enteric fever had occurred among the boys on the ship and was directly traceable to the infected blankets; that the public health department of the metropolitan borough of Stepney had detained 40 tons, probably 50,000, of the same consignment in a warehouse in Assam-street, Whitechapel, as they were found to contain the enteric fever bacilli in large numbers; and that the blankets sold in South Africa were stored in Whitechapel; and, if so, whether the War Office would consider the advisability of having them returned in order that they might be either destroyed or disinfected.—Captain NORTON put a similar question.—Mr. BRODRICK replied: I have ascertained that a large number of the blankets have been sold by tender in South Africa, but I am afraid I have no power whatever to recall those blankets which have been sold. The ordnance regulations lay down that no condemned blankets shall be sold before they have been torn in four pieces, and complete instructions are also included in the medical regulations

as to disinfection in every case of infectious disease. I also issued special orders to South Africa two years ago neither to sell nor to send home any textile fabrics which might convey infection. I have caused the general officer commanding to investigate and to report fully on the matter and to take steps to have any condemned blankets still remaining in South Africa destroyed.

Nottingham Small-pox Hospital.

MR. JOHN ELLIS asked the President of the Local Government Board whether his attention had been called to the erection by the corporation of Nottingham of a small pox hospital on the extreme northern boundary of its area in close proximity to a road along which numbers of persons were daily passing and to a number of dwelling-houses and a growing population; and whether he could take any steps in the matter for the protection of the public outside Nottingham.—MR. LONG replied: The Nottingham Town Council has erected a small-pox hospital on a site which it considers the most suitable that could have been selected within the borough. I am informed that the neighbourhood is the most sparsely inhabited part of the borough, that there is no considerable population within a radius of two miles of the site, and that within this radius there are only a few scattered houses and the Bestwood colliery and ironworks, the latter being half a mile from the hospital. The town clerk informs me that the road referred to in the question is used almost solely by men working at the colliery and ironworks most of whom drive in breaks when going to and from work and have no need to pass at any other time. He adds that there is no evidence of any increase, or likelihood of increase, in the building operations in the neighbourhood. The town council has not applied to me for sanction to a loan in connexion with the hospital and I have no jurisdiction in the matter. I should gather that the conditions which the Local Government Board requires in the case of hospitals provided by means of loans sanctioned by it have been complied with, but I will make further inquiry as to this.

Medical Services in the Highlands.

MR. CATHCART WASON asked the Lord Advocate if the committee of the Scottish Local Government Board which had been making inquiry into the subject of Poor-law medical relief had also inquired into the grievances of the parochial medical officers in the highlands and islands of Scotland, and, if so, whether he would state what steps the Government proposed to take in the matter.—THE LORD ADVOCATE replied: The committee in question is a departmental one to inquire into and report on the methods and conditions under which Poor-law medical relief is at present administered in Scotland and on what changes, if any, it is advisable to make in regard thereto, or in the regulations for distributing the sum contributed from the local taxation account to the cost of Poor-law medical relief and trained sick nursing, or in the rules and regulations for the management of poorhouses; and it is only incidentally, therefore, that the subject of the honourable Member's question can come within the terms of reference. In any case the committee not having reported it is not possible as yet to say what steps it may be the duty of the Government to take in the matter.

TUESDAY, MAY 26TH.

Plague at Hong-Kong.

MR. WEIR asked the Secretary of State for the Colonies whether he was aware that 117 cases of plague resulting in 99 deaths were reported to have occurred at Hong Kong in one week during the present month; and whether he would state when he proposed to lay upon the table of the House the reports of the medical and sanitary experts, Dr. W. J. R. Simpson and Mr. Robert Chadwick, who visited Hong-Kong last year in connexion with the plague.—MR. CHAMBERLAIN replied: I am aware of the facts quoted by the hon. Member, which were reported to me by the governor in a telegram which was communicated to the press. I do not propose to lay the reports referred to on the table, but I have caused copies to be placed in the library.

BOOKS, ETC., RECEIVED.

ASSELIN ET HOUZEAU, Place de l'École-de-Médecine Paris.

Les Déséquilibrés du Système Nerveux. Étude Clinique et Thérapeutique. Par le Dr. A. Raffray, Ancien Interne des Hôpitaux de Paris. Preface du Dr. H. Barth, Médecin de l'Hôpital Necker. Price not stated.

BAILLIÈRE, TINDALL AND COX, 8, Henrietta-street, Covent-garden, W.C.

The Imperfectly Descended Testis: Its Anatomy, Physiology, and Pathology. By W. McAdam Eccles, M.S. Lond., F.R.C.S. Eng., Assistant Surgeon to, and Demonstrator of Operative Surgery at, St. Bartholomew's Hospital. Price 7s. 6d. net.

Muco-membranous Colitis. By Dr. Froussard, Ancien Interne des Hôpitaux de Paris; Physician at Plombières-les-Bains. Price 1s. net.

BALE (JOHN) SONS, AND DANIELSSON, LIMITED, 83-89, Great Titchfield-street, W.

Squint: its Causes, Pathology, and Treatment. By Claud Worth, F.R.C.S. Price 6s. net.

Observations on the Sensibility of the Abdominal Cavity. By K. G. Lennander, F.R.C.S. Eng., Professor of Surgery in Upsala, Sweden. Translated by Arthur E. Barker, F.R.C.S., Professor of Surgery at University College, London. Price 3s. net.

BRAUMÜLLER, WILHELM, Wien und Leipzig.

Die Vererbung der Syphilis. Ist eine paterne Vererbung erwiesen? Von Dozenten Dr. Rudolf Matzenauer. Price not stated.

Die Vererbung der Syphilis. Von Dozent Dr. Rudolf Matzenauer. Ergänzungsheft zum "Archiv für Dermatologie u. Syphilis." Price not stated.

HIRSCHWALD, AUGUST, Unter den Linden, 68, Berlin, N.W.

Körperübungen und Alkoholismus. Von Ferdinand Hueppe. Vortrag gehalten in der Eröffnungssitzung des IX. Internationalen Congresses gegen den Alkoholismus am 15. April, 1903, in Bremen. Price 60 pf.

LONGMANS, GREEN AND CO., 39, Paternoster-row, E.C.

Alpine Flora. For Tourists and Amateur Botanists. By Dr. Julius Hoffmann. Translated by E. S. Barton (Mrs. A. Gepp). Price 7s. 6d. net.

The Royal University of Ireland Calendar for the Year 1903. Price not stated.

Hampshire Days. By W. H. Hudson, Author of "Birds and Man," "Nature in Downland," &c. Price 10s. 6d. net.

A Manual of Surgical Treatment. By W. Watson Cheyne, C.B., M.B., F.R.C.S., F.R.S., Professor of Clinical Surgery in King's College, London, and F. F. Burghard, M.D., M.S. Lond., F.R.C.S., Teacher of Operative Surgery in King's College, London. In six parts. Part VI. Section II. The Treatment of the Surgical Affections of the Rectum, the Liver, Pancreas and Spleen, the Genito-Urinary Organs, the Breast and the Thorax. Price 21s.

MALOINE, A., 2-325, Rue de l'Ecole-de-Médecine, Paris.

Précis d'Exploration Externe du Tube Digestif d'après la Méthode de Sigaud (de Lyon). Par A. Chaillou, Médecin attaché au Service antirabique à l'Institut Pasteur, et Léon MacAuliffe, Secrétaire de la Société française d'Histoire de la Médecine. Price not stated.

MERCK, E., Darmstadt (16, Jewry-street, London, E.C.)

Report on the Advancements of Pharmaceutical Chemistry and Therapeutics. Complete series. Volume XVI. 1902. Price not stated.

MURRAY, JOHN, Albemarle-street, W.

Handbook of Physiology. By W. D. Halliburton, M.D., F.R.S., Professor of Physiology, King's College, London. Fifth edition. Being the eighteenth edition of Kirkes' Physiology.) Price 14s.

Service and Sport on the Tropical Nile. By Captain C. A. Sykes, R.H.A. Price 12s. net.

OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, Calcutta.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. Some Observations on the Poison of Russell's Viper (Daboia Russellii). By G. Lamb, M.D., Captain, I.M.S., and Wm. Hanna, Esq., M.B., &c. New Series. No. 3. Issued under the authority of the Government of India by the Sanitary Commissioner with the Government of India, Simla. Price As.5 or 6d.

REBMAN, LIMITED, 129, Shaftesbury-avenue, Cambridge-circus, W.C.

A Manual of Plague. By William Ernest Jennings, M.B., C.M., Major in the Indian Medical Service; Chief Medical Officer for Plague Operations in the Bombay Presidency. With an Introduction by Surgeon-General G. Bainbridge, M.D., M.R.C.P., I.M.S. Price 8s. net.

SAUNDERS, W. B., AND CO., Philadelphia, New York, and London.

Diseases of the Liver, Pancreas, and Suprarenal Capsules. By Leopold Oser, M.D., of Vienna; Edmund Neusser, M.D., of Vienna; Henry Quincke, M.D., of Kiel; and G. Hoppe-Seyler, M.D., of Kiel. Edited, with additions, by Reginald H. Fitz, M.D., of Harvard University, and Frederick A. Packard, M.D., of Philadelphia. (Nothnagel's Encyclopædia of Practical Medicine. English edition.). Price, cloth, 21s. net.

Diseases of the Stomach. By Franz Riegel, Professor of Clinical Medicine in the University of Giessen. Edited, with additions, by Charles G. Stockton, M.D., Professor of Medicine in the University of Buffalo. Price, cloth, 21s. net. (Nothnagel's Encyclopædia of Practical Medicine.)

A Text-book of Legal Medicine and Toxicology. Edited by Frederick Peterson, M.D., President of the New York State Commission in Lunacy, and Walter S. Haines, M.D., Professor of Chemistry, Pharmacy, and Toxicology in Rush Medical College, Chicago. In two volumes. Volume I. Price 21s. net.

Tuberculosis. Recast from Lectures delivered at Rush Medical College, in Affiliation with the University of Chicago. By Norman Bridge, A.M., M.D., Emeritus Professor of Medicine in Rush Medical College. Price 6s. net.

SCIENTIFIC PRESS, LIMITED, 28 and 29, Southampton-street, Strand, W.C.

Burdett's Hospitals and Charities, 1903. By Sir Henry Burdett, K.C.B. Price 5s. net.

SOCIETY FOR PROMOTING CHRISTIAN KNOWLEDGE, London.

"Christian Science" Contrasted with Christian Faith, and with Itself. By William Lefroy, D.D., Dean of Norwich. Price 2s. 6d.

STEINHEIL, G., 2, Rue Casimir-Delavigne, Paris.

Contribution à l'Etude du Testicule dans Quelques Infections Orbites Expérimentales. Par le Dr. Charles Esmonet, Ancien Interne des Hôpitaux. (Travail du Laboratoire de M. le Professeur agrégé H. Roger.) Price not stated.

Travaux de Chirurgie Anatomo-clinique. Par Henri Hartmann, Professeur agrégé à la Faculté de Médecine Chirurgien de l'Hôpital Laribosière. Voies Urinaires. Estomac. Price 15 francs.

UNIVERSITY PRESS, Cambridge. (C. J. CLAY AND SONS, Ave Maria-lane, London.)

The Geography of Disease. By Frank G. Clemow, M.D. Edin., D.P.H. Camb., British Delegate to the Ottoman Board of Health, Physician to H.M. Embassy at Constantinople. (Cambridge Geographical Series, General Editor, F. H. H. Guillemard, M.D.) Price 15s.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BOWKER, CEDRIC V., M.B., Ch.M. Syd., has been appointed temporarily as second Government Medical Officer, New South Wales, Australia, for six months.

CANN, T. P., M.D. Durh., has been appointed Certifying Surgeon under the Factory Act for the Newhaven District of the county of Sussex.

COADY, D. P., L.R.C.P. Edin., L.R.C.S. Edin., F.R.C.S.I., has been appointed Certifying Surgeon under the Factory Act for the Naas District of the county of Kildare.

COLEMAN, F., L.R.C.S., L.R.C.P., L.D.S. Eng., has been appointed Dental Surgeon to the Metropolitan Hospital.

CROOKS, J., L.R.C.S. Edin., has been appointed Certifying Surgeon under the Factory Act for the Axminster District of the county of Devon.

CUSCADEN, GEORGE, L.R.C.P. & S. Edin., has been appointed Honorary Surgeon to Out-patients, Women's Hospital, Melbourne, Victoria, Australia.

FAIRCLOUGH, T. B., M.D., M.S. Irel., has been appointed Certifying Surgeon under the Factory Act for the Dewsbury District of the West Riding of the county of York.

FORSYTH, CHARLES W., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Medical Officer to St. Mary Islington Infirmary, Highgate-hill.

GREIG, JANET, M.B., Ch.B. Melb., has been appointed Honorary Assistant Anæsthetist to the Melbourne Hospital, Victoria, Australia.

HEARN, E. M. W., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Superintendent of the Bolingbroke Hospital.

HENRY, JOHN P., M.D., B.Ch. Dub., has been re-appointed Oculist to the London School Board.

JACK, J. G., M.B., B.S. Edin., has been appointed Certifying Surgeon under the Factory Act for the Falkland District of the county of Fife.

MASON, HENRY B., L.D.S. Eng., has been appointed Consulting Dental Surgeon to the Devon and Exeter Dental Hospital.

MEAGHER, W., L.R.C.P. Irel., L.R.C.S. Irel., has been appointed Certifying Surgeon under the Factory Act for the Ferbane District of the King's County.

OGILVY, S. G., M.B., M.S. Edin., has been appointed Certifying Surgeon under the Factory Act for the Fauldhouse District of the county of Linlithgow.

PIPETTE, WALTER, L.R.C.P., L.R.C.S. Edin., L.S.A. Lond., has been appointed Public Vaccinator for the Bawdrip and Chedzoy district by the Barnstaple Board of Guardians.

PRYTHERCH, H., M.R.C.S., L.R.C.P. Edin., has been appointed Certifying Surgeon under the Factory Act for the Beaumaris District of the county of Anglesey.

SCOTT, C. H., M.B., Ch.B. Melb., has been appointed Medical Officer to the Bourke Hospital, New South Wales, Australia.

SIMPSON, C., M.B., M.S. Aberd., has been appointed Certifying Surgeon under the Factory Act for the Towcester District of the County of Northampton.

SOLTAU, ALFRED BERTRAM, M.B. Lond., F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Physician to the Devon and Cornwall Ear and Throat Hospital, Plymouth.

STRICKLAND-GOODALL, J., M.B. Lond., has been appointed Lecturer on Physiology in the Medical School of the Middlesex Hospital.

TAYLOR, GEORGE HENRY, L.R.C.P. & S. Edin., has been appointed Government Medical Officer and Vaccinator at Sydney, Australia, and Visiting Surgeon, Darlinghurst Gaol, during the absence of Dr. Paton on leave.

WATERHOUSE, RUPERT, M.B., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Resident Medical Officer to the Bath Mineral Water Hospital, vice Mr. J. W. Malin, resigned.

WORDOYS, T. S., L.R.C.P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory Act for the Winterton District of the county of Lincoln.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BATH, ROYAL UNITED HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.

BECKETT HOSPITAL, Barnsley, Yorkshire.—Resident House Surgeon. Salary £100, with board, lodging, and washing.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Clinical Assistant. Honorarium at rate of 52 guineas per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.

CHARING CROSS HOSPITAL.—Assistant Physician.

CHICHESTER INFIRMARY.—Honorary Medical Officer. Also Surgeon Dentist.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Resident Medical Officer. Salary £100 per annum, with board, residence, and washing.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Second Assistant Medical Officer, unmarried. Salary £200 a year, with board, lodging, washing, and attendance.

GRAVESEND HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Senior House Surgeon, Senior House Physician, and two Junior House Surgeons, each for six months. Salary of Seniors at rate of £60 per annum, of Juniors at £30 per annum, with board, lodging, and washing.

HARRIS, PARISH OF.—Medical Officer and Public Vaccinator. Salary £110.

AYDOCK LODGE ASYLUM, Lancashire.—Assistant Medical Officer, unmarried. Salary £200 a year, with quarters, board, washing, &c.

HOLLOWAY SANATORIUM HOSPITAL FOR THE INSANE, Virginia Water, Surrey.—Junior Assistant Medical Officer. Salary £175 per annum, with board, lodging, and attendance.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Physician, unmarried, for six months. Salary £20, with washing allowance, board and residence. Also Assistant Surgeon.

HOSPITAL FOR WOMEN, Soho-square, W.—House Physician for six months; salary £50 for that period. Also Assistant Physician.

INDIAN MEDICAL SERVICE, India Office, London, S.W.—Examination for not less than Sixteen Commissions in His Majesty's Indian Medical Service.

KETTERING AND DISTRICT GENERAL HOSPITAL.—House Surgeon, unmarried. Salary £75 per annum, with apartments, board, and laundry.

LANCASHIRE COUNTY ASYLUM, Winwick, Warrington.—Assistant Medical Officer, unmarried. Salary £150 per annum, increasing to £350, with apartments, board, attendance, and washing.

LIVERPOOL STANLEY HOSPITAL.—Senior House Surgeon. Salary £100 per annum, with board, residence, and washing.

MANCHESTER ROYAL INFIRMARY.—Surgical Registrar (non-resident). Salary £80 per annum.

MIDDLESEX HOSPITAL, W.—Director of the Cancer Research Laboratories. Salary £500 per annum, rising to £800. Also Cancer Research Scholarship, value £105.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with board, residence, and washing.

NORFOLK AND NORWICH HOSPITAL.—House Physician, unmarried. Salary £80 per annum, with board, lodging, and washing.

NORTH DEVON INFIRMARY, Barnstaple, Devon.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, E.—House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and laundry.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer, unmarried. Salary £100 per annum, with board and lodging.

ROYAL DENTAL HOSPITAL OF LONDON.—Two House Anæsthetists. Honorarium £50 per annum.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, S.E.—Resident Medical Officer. Salary at rate of £70 per annum.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer on Physiology. Salary £300 per annum.

ST. MARY'S HOSPITAL FOR SICK CHILDREN, Plaistow, London, E.—Resident Medical Officer, unmarried. Salary £100 per annum, with board, residence, and laundry. Also Assistant Resident Medical Officer, unmarried, for six months. Salary at rate of £80 per annum, with board, residence, and laundry.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, Cavendish-square.—Honorary Obstetric Physician.

SEAMEN'S HOSPITAL SOCIETY ("DREADNOUGHT").—Senior House Surgeon and Registrar. Salary £100 per annum, with board and residence.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months, renewable. Salary at rate of £50 per annum, with board and residence.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon, unmarried, for six months, renewable. Salary at rate of £70 per annum, with residence, board, and washing.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Physician or Surgeon-Accoucheur.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House Surgeon. Salary £50 per annum, with board, lodging, washing, and attendance.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician and House Surgeon, both for six months. Board and lodging provided.

Births, Marriages, and Deaths.

BIRTHS.

CHANNER.—On May 12th, at Park-hill, Ealing, W., the wife of Lieutenant-Colonel O. H. Channer, I.M.S., of a son.

ECCLES.—On Monday, May 25th, at 63, Sackville road, Hove, the wife of G. Tolcher Eccles, M.A., M.M. Cantab., of a daughter.

MACLEOD.—On May 23rd, at Ladbroke-grove, W., the wife of C. E. Alex. MacLeod, F.R.C.S. Eng., of a son.

MARRIAGES.

GRIMWADE—TANNER.—On 30th March, at St. Mary's, Caulfield, Victoria, by the Rev. A. H. J. Priest, assisted by the Rev. Canon Sutton, Alfred Sheppard Grimwade, M.R.C.S. Eng., L.R.C.P. Lond., third son of the Hon. F. S. Grimwade, Harleston, Caulfield, to Amy Gertrude, second daughter of Thomas Tanner, Esq., Old Trafford, Manchester, England.

MILLS—MACDOUGALL.—At 46, Millbrae-road, Langside, Glasgow, on the 21st inst., by the Rev. D. Georgeson, U.F. Church, Bowling, assisted by Rev. D. Taylor, U.F. Church, West Calder, Robert J. Mills, M.B., Ch.B. Glasg., Hirst, Morpeth, to Barbara Chisholm (Cissy), eldest daughter of the late Wm. Macdougall, Charing Cross, Glasgow.

RICE—SHENTON.—On April 18th, at Perth, West Australia, Hubert Richard Rice, M.R.C.S., L.R.C.P. Lond., to Florence Julia, third daughter of Sir George Shenton, President of the Legislative Council of West Australia, Crawley Park, Perth.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

CAN A VARICOCELE BE CAUSED BY A STRAIN?

To the Editors of THE LANCET.

SIRS,—During the last few weeks I have had two cases of the above complaint following the lifting of heavy weights and slipping of the foot. In the first case (a boy aged 14) nothing ailed the patient before the accident, on the occurrence of which he was obliged to leave his work in the pit owing to pain and swelling in the left inguinal region. The swelling was above the size of a pigeon's egg and under rest and warm applications it subsided in about five days leaving well-marked varicocele. In the second case there was a predisposition to varicocele; following the strain there was also a sudden darting pain from the loin to the left testis and incapacity from following his employment. One of these cases has already come under the arbitrator's hands (under the Compensation Act) and is still undecided, the chief defence against the claim being that "an accident is not mentioned in the leading text-books as being the cause of varicocele." I should be glad of some enlightenment on the point.

I am, Sirs, yours faithfully,

ENQUIRER.

*** There is nothing intrinsically impossible in a great straining giving rise to a varicocele. It is not, however, a common cause, but anything which produces excessive pressure in the intra-abdominal portion of the spermatic veins may overcome the valves and so bring about dilatation of the pampiniform plexus.—ED. L.

A QUESTION OF NOMENCLATURE.

To the Editors of THE LANCET.

SIRS,—In the "Mirror of Hospital Practice" in THE LANCET of May 23rd, p. 1444, two very interesting cases under Sir W. J. Collins's care are reported at length under the name of "Richter's Hernia." Should it not be *Littré's hernia?* I believe Littré was the first to describe partial inclusion of the intestinal lumen in a hernial sac as a cause of intestinal obstruction and that this particular condition has up to the present been usually termed "Littre's hernia." If any of your correspondents can inform me I shall personally be glad and I feel sure that candidates for the Fellowship will be glad of a reduction in the number of conditions and operations associated with a name, however renowned, instead of a descriptive adjective, referring anatomically or pathologically to the position or causation of the lesion.

I am, Sirs, yours faithfully,

May 25th, 1903. M.D.

*** We publish our correspondent's letter, but the point that he raises was discussed in an annotation which appeared at p. 1460 of THE LANCET of May 23rd, and which he appears to have overlooked.—ED. L.

DANIEL LAMBERT'S CLOTHES.

ACCORDING to the *Westminster Gazette*, at an auction sale recently held at the London Inn, Stamford, the clothes of Daniel Lambert, the famous eighteenth-century giant, were offered to the bidders, together with those of Tom Thumb, which were left at the hotel by the dwarf as a contrast. The articles have long been, after Burleigh House, the chief attraction of Stamford Town in the eyes of many Lincolnshire county people. Lambert, who weighed 53 stones, died at Stamford in June, 1809. The sum of £75 was offered for the clothes, but the lot was withdrawn.

"ONLY HAVE FAITH."

ON May 16th we reprinted a Christian Scientist handbill which promised "No more death" to those who "Only have faith." The following story is given by a reviewer in the *Daily Express*:—

> A woman who went to a Christian Science physician and told him that her husband was ill received this assurance: "Tut, tut; your husband is not ill but only thinks he is. Tell him so and come back and inform me next Tuesday week how he is getting on."
>
> On the following Tuesday week the distracted wife called upon the Christian Scientist.
>
> "Well," inquired the faith healer, "and how is your husband now?"
>
> "He is all right; there is nothing whatever the matter with him," she replied. "The only trouble is that he thinks he is dead, and the undertaker thought so too, for he buried him yesterday."

THE "DIAMOND CIGAR."

THE "diamond cigar" presents a distinct novelty as regards shape, which is considered to prevent the concentration of tarry matters and nicotine at the mouth end of the cigar when smoked. Of course, it is well-known that the products of the destructive distillation of the leaf are apt to collect at the mouth end of the cigar as smoking progresses. In order to avoid this accumulation of the nicotine and moisture the diamond cigar is constructed in the following way. A strip of special Havana tobacco runs through the entire length of the cigar and is surrounded by a short bundle of various Havana tobaccos which form the body of the cigar. The whole is inclosed in a wrapper or outer leaf. The shape of the cigar is thus similar to that of an elongated cork float used in fishing, the two ends being of about the diameter of a cigarette and about an inch long, while the size of the central section is the same as that of an ordinary cigar. The result is that the nicotine and tarry compounds collect at the end of the short bundle and not so much at the tip of the cigar. A practical trial certainly supported this view to some extent, the mouth end being dry and comparatively free from tarry matters when the cigar was finished. These cigars are obtainable from Messrs. Henry Welfare and Co. of 30, Clapham-road, London, S.W.

"THE GREAT PHYSICIAN."

WE have received from Herr Nicolaus Lehmann of Prague a photogravure of a picture bearing the above title by the well-known artist Gabriel Von Max. The picture represents the Saviour sitting at the couch of the daughter of Jairus. Our Lord is holding the girl's right hand, and the artist has very well expressed the gradual awakening from the sleep of death which the touch of the Divine Humanity imparts. The size of the reproduction is 47 by 69 centimetres, the price being £1 10s. It is a very dignified and simple conception of a striking incident.

THE KIN-HEE QUICK POT.

THIS tea or coffee pot, for it may be used for either purpose, has the merit of simplicity. It consists of two containers, the upper one, the infusing pot, being inverted and fitting into the lower one. The infusion of coffee or tea is made in the upper container or infuser which is detached for the purpose. When it is considered that the tea or coffee has been sufficiently infused the lower container which is fitted with a spout and handle is pressed firmly into the top of the infusing pot. The whole apparatus is then inverted so that the infusing pot is at the top and the container below. By means of a valve at the top of the infusing pot air is allowed to enter and the infusion then passes through a cloth strainer into the lower pot. Both infusion and percolation are thus effected. The result is excellent in regard to making either tea or coffee by this method. The time of infusion is under absolute control, there is no loss of fragrance or aroma, and the injurious astringent matters may be rejected. This principle in the making of both tea and coffee is physiologically correct. A specimen Kin-Hee pot in white metal was submitted to us for inspection and trial by Kin-Hee, Limited, 6 and 8, Eastcheap.

U. R.—The most comprehensive work on the chemistry of the urine is Neubauer and Vogel's "Harnanalyse"; the last German edition was published by Kreidel in Wiesbaden in 1898, two volumes, price about 22*s.* It could be obtained through foreign booksellers such as Messrs. Williams and Norgate, Henrietta-street, Covent-garden, London, W.C. The following can also be recommended:—"Practical Uranalysis and Urinary Diagnosis," by Charles W. Purdy, M.D.; pp. 392; Philadelphia, F. A. Davies Company; 1900. We understand that the publishers have no British agency so that the book would have to be ordered from America. "Clinical Examination of Urine, with an Atlas of Urinary Deposits," by Lindley Scott, M.D.; London, J. and A. Churchill; 1900. For picric acid testing the late Sir George Johnson's little book published in London about 15 years ago might be consulted. Clinical information will be found in "A Manual of Clinical Diagnosis," by Charles E. Simon; London, Henry Kimpton (13, Furnival-street, Holborn, E.C.); 1900.

Calomel.—Our correspondent would find the following books useful: Osler's "Principles and Practice of Medicine" (Kimpton); Judson Bury's "Clinical Medicine" (Griffin and Co.); Hares' "Therapeutics" (Henry Kimpton); "Clinical Psychiatry," translated by Dr. Defendorf (Macmillan and Co.); Mercer's "Psychology, Normal and Morbid" (Swan Sonnenschein); and Gowers's treatises on neurology. For special subjects Allbutt's "System of Medicine" may be consulted.

F. C. K.—The idea is not a new one, *vide* THE LANCET, vol. ii., 1871, p. 860, vol. i., 1875, p. 358, and vol. i., 1887, p. 394. We can see neither advantage nor disadvantage in the proposal.

M.B.—Calomel and starch.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 28th, 1903.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
May 22	30·15	S	...	128	78	51	63	68	Fine
,, 23	30·33	N.E.	...	121	71	55	54	61	Fine
,, 24	30·41	E.	...	115	66	47	47	51	Cloudy
,, 25	30·30	E.	...	120	70	43	51	55	Fine
,, 26	30·26	N.E.	...	115	70	48	53	60	Fine
,, 27	30·15	E.	...	123	70	49	56	58	Cloudy
,, 28	29·89	E.	...	103	64	57	58	62	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.) London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat Golden-square (9.30 A.M.), Soho-square (2 P.M.).

WEDNESDAY (3rd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

THURSDAY (4th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat, (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

FRIDAY (5th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

SATURDAY (6th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (3rd).—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Discussion on Chorionepithelioma and the Occurrence of Chorionepitheliomatous and Hydatiform Mole-like Structures in Teratomata (opened by Dr. J. H. Teacher of Glasgow (introduced by Dr. Eden) by a paper and epidiascope demonstration). The following have notified their intention to speak and show specimens—Dr. P. Horrocks, Dr. F. W. N. Haultain, Dr. W. E. Fothergill, Mr. H. Briggs, Dr. A. Helme, Dr. H. Spencer, Dr. A. H. N. Lewers, Dr. W. H. Tate, Dr. T. W. Eden, Mr. J. H. Targett, Dr. T. G. Stevens, Dr. J. M. Kerr, Dr. J. F. McCann, Dr. R. W. A. Walker, Dr. R. Andrews, and Dr. C. Lockyer. 7.30 P.M. Specimens will be exhibited.

THURSDAY (4th).—NORTH-EAST LONDON CLINICAL SOCIETY (Tottenham Hospital, N.).—4 P.M. Discussion (opened by Dr. S. E. Dore).

RÖNTGEN SOCIETY (20, Hanover-square, W.).—8.30 P.M. Mr. C. A. Clark will show Dental X-Ray Tube. Paper:—Rev. P. Mulholland: On the Electric Field surrounding the X-Ray Tube.

FRIDAY (5th).—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Cases, Specimens, and Instruments will be shown by Mr. W. H. R. Stewart, Dr. F. Potter, Dr. W. Wingrave, Mr. de Santi, and others.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY (2nd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Sir W. H. Broadbent: Clinique. (Medical.)

POST GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Bidwell: The Diseases of the Stomach amenable to Surgical Treatment.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Ormerod: Myasthenia.

WEDNESDAY (3rd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. R. Harrison: Clinique. (Surgical.) 5.15 P.M. Dr. L. Lack: Nasal Polypus.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Robinson: Uterine Hæmorrhage.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Mackenzie: Empyema.

THURSDAY (4th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Mr. R. Harrison: Hæmaturia.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Treatment of some Injuries and Emergencies.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—4 P.M. Dr. F. W. Tunnicliffe: Digestion, Assimilation, and Dietetics in Phthisis. (Post-Graduate Course.)

CHARING CROSS HOSPITAL.—4 P.M. Dr. Hunter: Medical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Lantern Demonstration:—Dr. F. J. Poynton: The Lesions of Rheumatic Fever.

GUY'S HOSPITAL MEDICAL SCHOOL—UNIVERSITY OF LONDON (Physiological Theatre).—4 P.M. Dr. E. W. Ainley Walker: The Relation of Human to Bovine Tuberculosis. (Gordon Lecture.)

FRIDAY (5th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. M. Gunn: Clinique. (Eye.) 5.15 P.M. Dr. S. Taylor: Parasites of the Gastro-intestinal Canal.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Beddard: The Physiology and Pathology of the Ductless Glands.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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During the week marked copies of the following newspapers have been received: *Revista Medica de S. Paulo, The Bulletin (New South Wales), Prince Alfred Hospital Gazette (Sydney, New South Wales), Bristol Press, Glasgow Daily Record, Daily Mail, Times, Morning Advertiser, Morning Post, Daily News, Daily Chronicle, The Engineer, Evansville Courier (Ind. U.S.A.), Sunday Journal News (Ind. U.S.A.), Hongkong Telegraph, The Welshman (Carmarthen), Westminster Gazette, Hertfordshire Mercury, Windsor and Eton Express, South Wales Daily News, Manchester Guardian, City Press, Mid Sussex Times, Walsall Advertiser, Herts Advertiser, Times of India, Mining Journal, Local Government Chronicle,* &c.

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N.—Messrs. Nicolay and Co., Lond.; Mr. A. Naline, St. Denis; Dr. Arthur Newsholme, Brighton; Mr. J. C. Needes, Lond.; Mr. H. Needes, Lond.

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V.—Dr. Louis Vintras, Lond.; Mr. G. Vickers, Lond.

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Z.—Messrs. C. Zimmermann and Co., Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Dr G. N. Adams, Ipswich; Aberystwyth Corporation, Clerk of; A. R. H.; A. S. R.; A. D. J.; Mr. W. H. Allen, Hurst Hill.

B.—Miss Birch, Cromer; Messrs. J. Beal and Son, Brighton; Mr. R. S. Barrow, Dulverton; Mr. C. W. Browne, Taungs, South Africa; Birmingham Ear and Throat Hospital, Secretary of; His Excellency the Brazilian Minister, Cannes; Dr. P. Bettremieux, Roubaix; Mr. H. Butterfield, Northampton; Dr. R. C. Benington, Herne Bay; Mr. R. R. P. S. Bowker, Abertillery.

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